SFG3874

LAO PEOPLES' DEMOCRATIC REPUBLIC MINISTRY OF AGRICULTURE AND FORESTRY

Lao Agriculture Commercialization Project (P161473)



SOCIAL ASSESSMENT

Prepared by Department of Planning, Investment and Finance November 7, 2017

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Acknowledgements

This report was prepared by the Department of Planning and Finance (DOPF) under the Ministry of Agriculture and Forestry (MAF) with support from Tuan Anh Le (FAO and WB Consultant) under overall guidance and support of the World Bank Task Team Leaders - Binh Thang Cao (Senior Agriculture Specialist) and Konesawang Nghardsaysone (Trade Specialist).

During the field trip and report writing, technical support was provided by the World Bank Team in Vientiane, including Sybounheung Phandanouvong (Senior Social Development Specialist) and Keomanivone Phimmahasay (Economist/Lao Country Gender Focal Point) for social safeguards and gender, respectively. Comments on gender were also provided by Sanna Liisa Taivalmaa (Senior Gender Specialist), and .

Mr. Mr. Takayuki, FAO Chief of Investment Centre - Asia and the Pacific Service, provided overall guidance and support, and Maddalena DeSimone (FAO, Rome) provided administrative support for the first consultation and field trip.

Many individuals have contributed their support and input to this report – in various ways, including Alessandra Gage (FAO Consultant, Environmental and Climate Change Specialist), Chanhsom Manythong (WB Agriculture Specialists) in the first round of safeguards consultation, Olayvanh Singvilay and Bounhom Phothimath (Consultants) who led the consultation on gender-based supply chains in Xayabouly, Bolikhamxay, Vientiane, and Khammoune provinces. Olayvanh also provided consultation support in the first round of consultation.

Mr. Phouthone and Mr. Phanisone from the Ministry of Agriculture and Forestry has provided overall field support for the two rounds of consultation. Without their commitment, the field trips to support the consultation exercise were not possible within the limited time frame.

Vatthana Singharaj (World Bank, Vientiane) and Quyen Thuy Dinh (World Bank, Vietnam) provided in-country support and logistical assistance.

Experience on rice supply chain in Laos was shared by Mr. Ranjan Shrestha, Chief Technical Advisor, SNV – Laos, through the consultation meeting in Vientiane.

Input on nutrition was provided from the Nutrition Report by Anna-Lisa Noack (FAO).

The report benefited from rounds of reviews by the World Bank team – from Vientiane, Lao PDR and Washington DC.

Finally, this report has not been possible without the time and active participation of the local peoples from the four provinces. Their invaluable inputs are useful to the design of intervention approach which is proposed in this report. **Abbreviations**

ACP	Agriculture Commercialization Project
AVCF	Agriculture Value Chain Facility
CPF	Country Partnership Framework
CPSC	Central Project Steering Committee
DAEC	Department of Agricultural Extension and Cooperatives
DAFO	District Agricultural and Forestry Office
DALAM	Department of Agricultural Land Management
DOA	Department of Agriculture
DOI	Department of Irrigation
EGEF	Ethnic Group Engagement Framework
EGDP	Ethnic Group Development Plans
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization
FO	Farmer organizations
GAP	Good Agricultural Practices
GRS	Grievance Redress Service
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IP	Indigenous Peoples
Lao PDR	Lao People's Democratic Republic
M&E	Monitoring and evaluation
MAF	Ministry of Agriculture and Forestry
NAFRI	National Agricultural and Forestry Research Institute
NSEDP	National Social-Economic Development Plan
PAFEC	Provincial Agriculture and Forestry Extension Centre
PAFO	Province Agricultural and Forestry Office
RAP	Resettlement Action Plan
PDO	Project Development Objective
PIA	Project Implementing Agency
POM	Project Operations Manual
РР	Productive Partnerships
PSC	Provincial Steering Committee
CRPF	Compensation and Resettlement Policy Framework
SA	Social Assessment
SBCC	Social Behavior Change Communication
SDG	Sustainable Development Goals
TOR	Terms of Reference
VMU/C	Village Mediation Unit or Village Mediation Committee
WBG	World Bank Group

Key definitions

Consultation, as distinct from dialogue, is a more structured exchange in which the convener commits to "active listening" and to carefully consider the comments, ideas, and recommendations received. Good practice consultations provide feedback on what was heard, and what was or was not incorporated and why to ensure that consultations contribute to improved policies and programs.

Focus group discussions are usually organized with specific goals, structures, time frames, and procedures. Focus groups are composed of a small number of stakeholders to discuss project impacts and concerns and consult in an informal setting. They are designed to gauge the response to the project's proposed actions and to gain a detailed understanding of stakeholders' perspectives, values, and concerns

Gender refers to the social, behavioral, and cultural attributes, expectations, and norms associated with being a women or a man. Gender equality referes to how these aspects determine how men and women relate to each other and to the resulting differences in power between them.

Gender analysis identifies, assesses and informs actions to address inequality that come from: 1) different gender norms, roles and relations; 2) unequal power relations between and among groups of men and women, and 3) the interaction of contextual factors with gender such as sexual orientation, ethnicity, education or employment status.

Gender equality refers to equal chances or opportunities for groups of women and men to access and control social, economic and political resources, including protection under the law (such as health services, education and voting rights). It is also known as equality of opportunity – or formal equality. Gender equality is often used interchangeably with gender equity, but the two refer to different, complementary strategies that are needed to reduce gender-based health inequities.

Gender equity. More than formal equality of opportunity, gender equity refers to the different needs, preferences and interests of women and men. This may mean that different treatment is needed to ensure equality of opportunity. This is often referred to as substantive equality (or equality of results) and requires considering the realities of women's and men's lives. Gender equity is often used interchangeably with gender equality, but the two refer to different, complementary strategies that are needed to reduce gender-based health inequities.

Gender Mainstreaming. Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality

Participatory planning convenes a broad base of key stakeholders, on an iterative basis, in order to generate a diagnosis of the existing situation and develop appropriate strategies to solve jointly identified problems. Project components, objectives, and strategies are designed in collaboration with stakeholders.

Executive Summary

This report was structured under five key chapters, including Introduction, Methods, Findings, Mitigation Measures & Approach to Enhancing Development Effectiveness, and Conclusions and Recommendations.

- **Chapter 1 -** *Introduction* presents an overview of the project, including project objective, its components, project's intended beneficiaries, and an brief overview of project potential impacts (both positive and negative), and related measures for mitigating such potential impacts.
- Chapter 2 *Methods* explains the purpose of the Social Assessment and the methods employed to conduct the social assessment.
- **Chapter 3 -** *Findings* present the results of the extensive works that has been done based on desk review of related literatures, and two rounds of the consultation with local peoples in four out of five project provinces.

Findings present a) country overview, b) its general socioeonomic conditions, c) gender analysis, d) potential project impacts, e) consultation outcomes - both safeguards and gender. It is noted that gender analysis is structured under this chapter to present its findings in the context of the overall project, which enables gender aspects to be mainstreamed into project activities. The Gender analysis was done as a basis for developing a Gender Action Plan, and Monitoring Plan using chains results approach to trach how changes are made from activity, output and eventually outcome, and impact levels.

- Chapter 4 Mitigation Measures & Approach to Enhancing Development Effectiveness present ways to avoid/mitigate identified adverse impact, as highlited in the previous section (Chapter 3 – Findings), and propose approach that the project could use to enhance the development effectiveness (intended impact) of the project. Development effectiveness approach is taken - not only to assure achievement of project objective but also eliminate the chance of adverse impact happening as a result of the intervention actions taken during project implementation.
- **Chapter 5 -** *Conclusions and Recommendations* presents brief conclusion on the project potential impact findings, and proposed five key recommendations as a way forwards for intervention approach that the project should take to achieve fully the project's development objective.

1. INTRODUCTION

1.1 Project objective

The proposed Agriculture Commercialization Project (ACP) seeks to enhance the competitiveness and sustainability of Lao PDR's agriculture sector through technical and financial support to increase in agricultural productivity and commercialization in selected strategic value chains. The project would focus on: (i) the geographical areas with high agricultural development potentials; (ii) the farming systems with high potentials for commercialization (i.e. rice, maize, vegetables); (iii) promotion of good agricultural practices and climate smart agricultural technologies and farming system diversification to enhance food and nutritional security; (iv) building capacity for farmers' organizations, agribusinesses, public and private service providers; and (v) building on and developing synergies with other government/donor programs.

The Project Development Objective (PDO) is to increase competitiveness of selected value chains in the project areas.

1.2 Project components

The project would comprise the following three components: (A) Improved Agriculture Efficiency and Sustainability; (B) Enhanced Agriculture Commercialization; and (C) Project Management.

Component A – Improved Agriculture Efficiency and Sustainability (est. US\$ 26.3 million, of which International Development Association (IDA) would finance around US\$ 22.8 million). This component would support: (a) Adopting good varieties and quality seeds, (b) Promoting good agriculture practices, (c) Providing critical infrastructure, and (d) Strengthening public services delivery.

Component B – Enhanced Agriculture Commercialization (est. US\$ 7.2 million, of which IDA would finance around US\$ 4.5 million). This component would support: (a) Establishing Agriculture Value Chain Facility (AVCF), (b) Linking farmers to markets, and (c) Improving the enabling environment.

Component C – Project Management (est. US 7.4 million, of which IDA would finance 100 percent). The component would support (a) Project management; and (b) Monitoring and Evaluation.

1.3 Project beneficiaries

The direct project beneficiaries are about 29,000 farm households, consisting of 150,000 people and working on 31,000 ha of farm area. This is 12 percent of all farm households in the project provinces and 4 percent of farm households in the country¹. These project beneficiaries live in 224 communes in 15 agricultural districts of 5 project provinces (Khammouane, Bolykhamxay, Xayabury, Vientiane province, and Vientiane Capital). In addition, the project will provide direct benefits to some 30 ABs operating in rice, maize, and horticulture value chains, and to the staff of the research, extension, and planning

¹ The 2010/11 Agricultural Census of Lao PDR estimates the total number of farm households in the project provinces to be about 254,700 and in the whole country 782,800.

institutions belonging to MAF and MOIC, through the institutional and capacity building activities.

Project benefits will expand beyond direct project beneficiaries. Indirect beneficiaries include up and downstream services sectors, e.g., suppliers of agricultural inputs, transport companies, traders, markets (both traditional/wet and supermarkets), exporters, and commercial banks, gaining from more profitable farmers, stronger value chains, more bankable ABs, and an increased supply of clean and safe foodstuff. Consumers at large will also gain by accessing more of locally-produced, clean, and safe food, which would help improve nutrition.

1.4 Project potential impact & mitigation measures

1.4.1 Potential impact

The project impact is anticipated to be overall positive given that project will provide farmers with opportunities to a) learn new farming knowledge and access high quality seed, b) improve their income by diversifying their crops on the basic of local knowledge and practices, c) work together with their fellow farmers to supply their farm product to private companies under productive partnerships, d) benefit from improved irrigation systems, and e) improved nutritional status for their families. Through various project activities at community level, there would be more opportunities for men and women to participate in project planning, implementation, monitoring and evaluation. Ethnic groups will be included have chance to participate in continuous consultation of the project to become beneficiaries. They can choose to join project activities that are appropriate to them in terms of farming practices and their culture.

In terms of adverse impact, the adverse impact is envisaged to be minor. Of the three project components, component A (*Improved Agriculture Efficiency and Sustainability*), is the one that could potentially result in land acquisition because of construction activities that will be done to rehabilitate existing irrigation systems. Based on the nature of the rehabilitation work, and the scope of work, no physical resettlement is envisaged. However, minor land acquisition (permanent and temporary) is anticipated as lining activities is done for existing water channels that may affect land and crops of local people. Some temporary minor non-land impact, such as noise, dust, temporary disruption of water access for small agricultural area, are anticipated, which may affect agricultural production or income generation activities of local peoples (local shops, businesses, etc.)

Some other potential impacts and risks ethnic groups (IPs) include their ability and technical know-how among ethnic famers and entrepreneurs to absorb and adopt advanced technology and technical support to be provided by the project in order to increase productivity and participate in the agribusiness and market.

1.4.2 Mitigation measures

In all cases, every effort will be made to avoid permanent land acquisition and physical resettlement. However, where avoidance is not possible, compensation will be paid to the affected households. For example, for local peoples who lose their land permanently as a result of rehabilitation of existing canal will be compensated for in accordance with this CRPF. For those who lose water access on a temporary basis due to construction operation

will be compensated for in case there is no measures available to avoid such temporary effect. Temporary environmental impact (including dust, noise, etc.) which affects the income generation activities of local people (affecting shops, local businesses, etc.) will be compensated for as per CPRF. A Resettlement Action Plan will be prepared for subproject involving adverse impact to ensure affected households are compensated so that they are not worse off as a result of project implementation.

2. METHODS

2.1 Purpose of the social assessment

The purpose of this social assessment (SA), conducted in an integral manner with environmental consultation for this project, is two-fold. First, it examined the potential impacts of the project – positive and adverse impact, including latent impact that may become adverse as a result of intervention methods, on the basis of planned project activities. Second, its findings inform the design of measures that aims to address identified potential adverse impact and propose recommendations on intervention approach that are important to achievement of project development goal. For identified adverse impact that could not be avoided, consultation with local people, governmental agencies, project stakeholders, were carried out to collect feedback to incorporate into project design.

This social assessment is also done as per requirement of World Bank's OP 4.10 on Indigenous Peoples. The project consulted with representatives from ethnic minority (EM) peoples who are present in the project area. As part of the SA exercise, consultation with ethnic minority peoples were carried out in a free, prior, and informed manner, to a) present them with project's potential impact, b) solicit their feedback/suggestions, and c) confirm if there is broad support from affected ethnic minority peoples for project implementation. The consultation also aims to explore opportunities to promote the participation of ethnic minority peoples to receive socioeconomic benefits that are culturally appropriate to them.

A gender analysis was also done as part of the SA to understand gender gaps in relation to project's scope of work, and develop an action plan to address the gaps, and plan to monitor the gender mainstreaming process to ensure achievement of the intended results. The purpose of gender mainstreaming – through local participation – is to also aim to enhance the overall development effectiveness of the project.

2.2 Methods

Research techniques. To ensure all potential impact could be identified during project preparation, the SA was conducted through series of consultations with various project stakeholders - with a particular focus on people who are potentially positively and/or adversely affected. The methods is mainly qualitative inquiry, including 1) review of secondary data, 2) field observations; 3) focus groups discussions/community meetings, and 4) key informant interview. Qualitative methods through these techniques ensure rich information are collected which are not available from quantitative methods such as household survey. To establish a pattern of findings, secondary data is collected through desk review of studies that are commissioned by major donors/think-tanks/institutions. These patterns are typically available at country and province level, which are useful given the absence of quantitative survey under this project given time and budget constraints.

Target groups. The project plans to target an estimated 29,000 farming households as direct beneficiaries. These people currently have a landholding of around 31,000 ha across five provinces of Khammouane, Bolykhamxay, Xayabury, Vientiane province, and Vientiane Capital. This target group account for 12 percent of all farm households in the project provinces, and are scattered across 15 districts of the five project provinces. In addition to farming households as beneficiaries, the project will provide direct benefits to some 30 Agribusiness who are operating in rice, maize, and horticulture value chains, and to the staff of the research, extension, and planning institutions belonging to MAF and MOIC. These benefits are working knowledge that are obtained through project's institutional and capacity development activities. The project also expands beyond the direct beneficiaries – as above mentioned, by conducting project activities that reach the downstream services sectors, such as agri-service suppliers, transport companies, traders who are operation at markets (both traditional/wet and supermarkets), exporters, and commercial banks. The consumers at large will gain project benefit by accessing more of locally-produced, safe and high quality food, which are of more nutritional value.

Samples. Qualitative inquiries were implemented in two rounds.

Rounds 1– conducted from 6 to 13 September 2017 including 344 participants, for social and environmental safeguards purpose, focusing on key issues including: a) Potential Project Impact, b) Compensation, c) GRM, d) Language of Consultation, e) Gender, f) Community Support, g) Participation mechanism. Of total 344 participants, 203 are men, 141 are women, of which 152 persons are from ethnic groups.

Rounds 2 – conducted from 11 to 17 October 2017 including 79 participants, mainly for gender analysis purpose, focusing on key gender issues with a focus on supply chain for rice, maize and vegetable, which the project plans to focus during project implementation. Of total 79 participants, 40 are men, 39 are women, of which 18 persons are from ethnic groups.

			Of which	
CONSULTATION	Total participants	Men	Women	Ethnic minorities
Round 1	344	203	141	152
Round 2	79	40	39	18
TOTAL	423	243 180		170
		(57.4%)	(42.6%)	(40.2%)

Details of the consultation sessions are broken down below.

-	No.	Project Provinces	Time	Venues	Participants	Total		Of which	
							Men	Women	Ethnic groups
		Round 1 – Con	sultation on S	ocial & Environn	nental Safeguards				
	1	Bolikhamxay	6 Sep 2017,	Community	■ 23 (20 men, 3	23	20	3	
			8:00 am	Center of	women).				

No.	Project Provinces	Time	Venues	Participants	Total		Of which	
						Men	Women	Ethnic groups
			Houana village, Bolikhan District					
2	Xayabouly	8:00 am, 8 Sep 2017	Thad Village, Xienghone District	 170+(90+ men, 80 women people, 9 EM (Hmong ethnic group; 11 from Khmou ethnic group; 1 from Lue ethnic group, and all remaining 100+ are from Nhouan ethnic group (). 	170	90	80	9
3	Xayabouly	10:00 am, 8 Sep 2017	Dontan Village, Xienghone District	 126 people (75 women, 51 men) There are 6 ethnic minority groups in this village attending the consultation: Lao (3), Lue (100); Hmong (5); Khmou (11); Pray (2); Nhouan (6). (75 women, 51 men). 	126	75	51	122
4	Bolikhamxay	13 Sep 2017	Sysomxay Village,	• 25 peoples (18	25	18	7	21

No.	Project Provinces	Time	Venues	Participants	Total		Of which	
						Men	Women	Ethnic groups
			Thaphabath District	men, 7 women). There are 3 ethnic groups participating, including 7 from Katang ethnic people, 12 from Tai ethnic group and 6 Lao				
	Round 2 – Con	sultation on (Gender, with focu	ethnic group).				
5	Xayabouly	11 Oct 2017	Paklay District, Bouamlao- phakeo Village	 15 (9 men, 6 women). No EM (group discussion) 	15	9	6	0
6	Xayabouly	11 Oct 2017	Paklay District, Bouamlao- phakeo Village	• 2 men (key informant interview)	2	2	0	0
7	Xayabouly	12 Oct 2017	Paklay district, Senphon village	 21 (8 men, 13 women), of which 5 are Khmou (group discussion) 	21	8	13	5
8	Xayabouly	12 Oct 2017	Paklay district, Senphon village	 2 persons (one men one women) 	2	1	1	0
9	Vientiane province	13 Oct 2017	Thoulakham district, Bungphao	• 14 (8 men, 6 women) of which 3 are	14	8	6	3

No.	Project Provinces	Time	Venues	Participants	Total		Of which	
						Men	Women	Ethnic groups
			village	Kmou (group discussion)				
10	Vientiane province	13 Oct 2017	Thoulakham district, Bungphao village	• 2 persons (women) collectors	2	0	2	0
11	Khammouane	17 Oct 2017	Mahaxay district, Nakyo village	 Rice farmer(without contract) 10 person (8 men, 2 women 	10	8	2	10
12	Khammouane	17 Oct 2017	Mahaxai District, Mahaxaineua Village	 Rice farmers (with contract) 4 women	13	4	9	0
				TOTAL	423	243	180	170

3. FINDINGS

This section presents a) key findings obtained from the review of literature (desk review as secondary data), and b) outcomes from the two rounds of consultation (as mentioned under Methods section above) as primary data.

It will present:

- a) Country overview,
- b) Project provinces overview,
- c) General socioeconomic information of project area, including key ethnic minority groups present in project area,
- d) Gender analysis,
- e) Potential project impact,
- f) Summary of consultation results, and
- g) Stakeholders.

3.1 Country overview

Economy.

Lao PDR, a lower-middle income economy with a GNI per capita of \$2,150 in 2016, is one of the fastest growing economies in the East Asia and Pacific region and globally. GDP growth averaged 7.8% over the last decade, with the use of the country's natural resources – mostly water, minerals and forests – contributing around one third of this growth. Economic growth remains vibrant in 2017, though slower compared to earlier years. An expansion in power generation, manufacturing, and agriculture is offset by a slight deceleration in investment and a drop in tourism. The growth in agriculture, where most Lao workers are engaged, and the recent expansion of labor intensive manufacturing, albeit from a low base, are expected to help in poverty reduction.

Still, the country continues to face a challenging macroeconomic situation. The fiscal deficit remains high, keeping the public debt elevated. Despite some improvement in recent years, the current account deficit is substantial. Fiscal and foreign reserves buffers remain thin, signaling remaining vulnerabilities in the economy. Parts of the banking sector continue to have weak capital buffers and deteriorating portfolios. Maintaining macroeconomic stability will require continued efforts to reduce the fiscal deficit, strengthen public debt management, and address weaknesses in the financial sector. As a member of the Association of Southeast Asian Nations (ASEAN), Lao PDR is increasing its integration into the regional and global economy, and served as the chair of ASEAN in 2016. Lao PDR has been a member of the World Trade Organization since February 2013.

Lao PDR has made good progress on a number of Millennium Development Goals (MDGs), including halving poverty, reducing hunger, and improving education and health outcomes. However, some MDGs remain off track, most crucially on nutrition, with an estimated 44% of under-five children being stunted. Total fertility rates are high, with a high unmet demand for family planning. Lao PDR still has a high maternal mortality rate and limited skilled birth attendants and could also do more to place gender equality at the center of its national development plans. The Sustainable Development Goals (SDGs) provide a framework for the government to monitor and evaluate the progress in its development plan implementation and commitments. Lao PDR is one of the first countries in the world to localize the SDGs into the national development plan.

Poverty and Inequality

While poverty certainly has a great impact on society as a whole, it affects principally the lives of individuals and local communities, and has a very strong geographical dimension. Defined as a state of deprivation, the phenomenon of poverty has multiple dimensions, and is not limited to economic aspects such as the lack of income or the opportunities to generate income, or the lack of means of production, or the lack of assets as a net in times of shortage. Poverty also encompasses dimensions such as vulnerability to various kinds of shock, the lack of opportunities to participate in decision-making, and the lack of access to information, to name just a few. All these aspects of poverty also have a geographical dimension.

According to the WB, about 80% of the population in 2013 live on less than \$2.5 per day and face a 10% chance of falling back into poverty. Agriculture and health shocks are the main drivers of household vulnerability. Farming households are twice as likely to fall back into poverty compared to non-farming households.

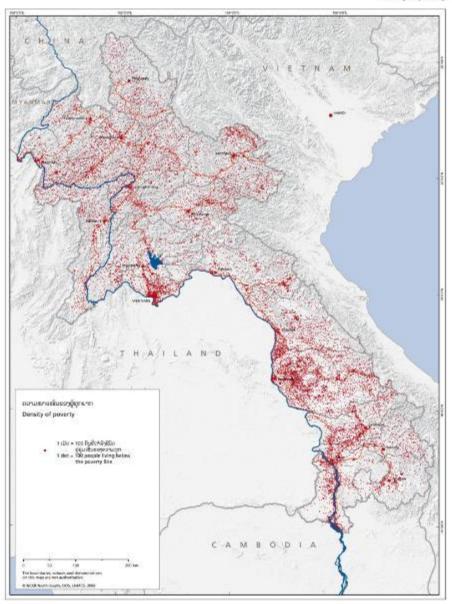
However, poverty in Lao PDR has been declined from 33.5% to 23.2% in the last decade lifting half a million people out of poverty. Improvements in citizens' welfare are evident –

the number of people with electricity has doubled and the proportion of those without a toilet halved.

This has implications related to the wider context of accessibility. On the one hand – from the perspective of the poor – poor people living in poor and sparsely populated areas usually have less access to services such as markets, medical and educational services, and sources of information, typically available in more densely populated and urban areas. On the other hand – from a service provider perspective, so to speak – it is much easier to reach the poor in the less poor, more developed, and more densely populated areas than it is in the poor and sparsely populated areas. To reach the same number of poor people in poor remote areas is significantly more expensive than reaching this number in highly populated areas.

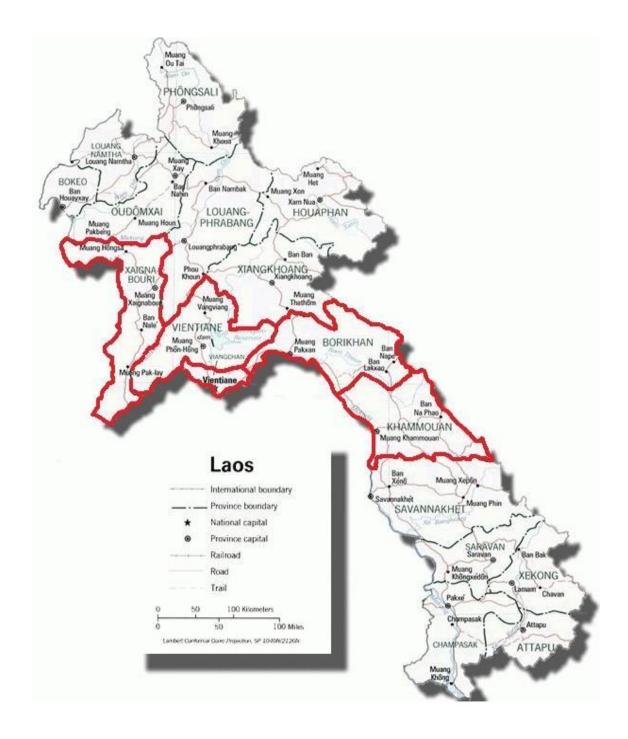
An important implication of this map is that if all poverty alleviation efforts are concentrated in the areas where the poverty rate is the highest, including the southeast, most of the poor will be excluded from the benefits of these programs.

l.2 ຄວາມໜາແໜ້ນຂອງຄວາມທຸກ Density of powerty



3.2 Project Province Overview

The project covers five provinces, including Khammouane Province, Xayabouly Province, Vientiane Province, Vientiane Capital, and Bolikhamxay Province (See Map below).



Khammouane province:

The province of Khammouane is located in the central part of Lao PDR and covers a total area of 16,315 Km2 (7% of Laos). Khammouane shares borders with Savannakhet province in the South, Bolikhamxay province in the North, Vietnam in the East and Thailand in the West. The province can be divided into three main geomorphological areas, 1) mountainous area (35% of the province) in the northern part with the districts of Nakai, Gnommalath and Boualapha; 2) plateau area (20% of the province) is located at an altitude between 300 to 700 m consisting of Thakek, Hinboun, Nongbok, Xebangfai, Mahaxai and Xaibouathong

districts, and is targeted for agro-forestry and industry tree plantation, and 3) lowland area (45%) covers flat areas along the Mekong River with fertile soil and suitable for rice and industrial crop(s) production(s).

The province has a total population of about 375,000 people out of which 186,801 are female. The population grew in average 2.2% per year between 2006 and 2009. In 2009, there were 66,776 households in Khammouane province with an average size of 5.5 (compared to 5.6 in 2006). The population density has from increased from 21 persons/km2 (in 2006) to 23 persons/km2, but still remains below the national average (26). From 1995 to 2005 the percentage of rural population fell from 87% to 79%. Three main ethnic groups in the province account for 94% of the population: Lao (69%), Phouthay (12%) and Makong (13%), the remaining 6% belong to a diversity of ethnicities.

According to DoNRE's classification, current land use comprises of mainly forest area (64%) whilst the remaining is agricultural, industrial land and water bodies. The climate is characterized by a dry and a rainy season and the average rainfall is ca. 2,600 mm per year. The Nam Teun and Xe Bang Fai form the two major river systems, flowing from the Anamite Mountain Range to the Mekong. Nam Theun 2 hydropower, the largest hydropower project in the country, is located at the base of the Nakai plateau.

The province is rich in biodiversity. The three National Biodiversity Conservation Areas (NBCAs) Nakai Nam Teun, Hin Nam No and Phone Hin Poune make up about 43% of Khammouane's total area and Nakai Nam Teun and Hin Nam No extend into parts of Nakai and Boualapha districts; logging activities are prohibited in these areas.

Xayabouly province

Xayabouly Province, one of the provinces of Laos, is in the shape of an upside-down-L. It covers an area of 16,389 square kilometres (6,328 sq mi). The province is located in the northwest of the country, and covers all the area west of the Mekong River. The province borders Bokeo Province and Oudomxai Province to the north, Luang Prabang province and Vientiane Province to the east.

The province is quite mountainous with the Luang Prabang Range running roughly in a north-south direction and forming a natural border with the Thai highlands.[9] The flattest and most tropical Laotian area is the floodplain which stretches between the provinces of Xayabouly and Champasak.[10] There are many mountain peaks with more than 1.000 meters elevation.[11] Other features include the Pak Kimin ridge near the Nam Heung stream

Xayabouly is the only Laotian province that is completely to the west of the Mekong River. (Champasak province also has several districts located west of the Mekong River including Mounlapamok, Soukama and Phontong districts.) The province is quite mountainous with the Luang Prabang Range running roughly in a north-south direction and forming a natural border with the Thai highlands. Xayabouly town is the capital of the province.

The province is rich in timber and lignite, and is considered the rice basket of northern Laos, since most other northern provinces are too mountainous to grow enough rice. Other important crops include maize, oranges, cotton, peanuts, sesame, sugarcane and vegetables such as cucumbers, cabbage, and beans.

Vientiane Province

Vientiane Province (also known as rural Vientiane) is a province of Laos, located in the northwest of the country. As of 2015 the province had a total population of 419,090 people. Vientiane Province is a large province, covering an area of 15,927 square kilometres (6,149 sq mi) with 10 districts in mid north-western Laos. The province borders Luang Prabang Province to the north, Xiangkhouang Province to the northeast, Bolikhamxai Province to the east, Vientiane Prefecture and Thailand to the south, and Xaignabouli Province to the west. The principal towns are Vang Vieng and Muang Phôn-Hông. Several kilometres to the south of Vang Vieng is one of Laos's largest lakes, Nam Ngum. Much of this area, particularly the forests of the southern part, are under the Phou Khao Khouay National Bio-Diversity Conservation Area. The principal rivers flowing through the province are the Nam Song River, Nam Ngum River and the Nam Lik River.

According to the 2014 census, the province's Vientiane Plain which covers Vientiane Province and Vientiane Municipality is the largest plain in the country. Situated in the lower reaches of the Nam Ngum River Basin, it is one of the nation's largest food production hubs. The province has a total rice production land area of 66,768 hectares which yields approximately 269,960 tons of rice a year. Other popular crops and produce in Vientiane Province include corn, Job's-tears, cassava, bananas, limes, cucumbers, sweet tamarin, tobacco, and watermelons.

In its 8th Five-Year Development Plan (2016-2020), the Lao government encourages more sustainable agricultural productions that link to processing. Vientiane is among the chosen provinces for agro-processing industry. Production centers have been founded for crop seeds and animal breeders. The goals are to scientifically promote good seeds that yield short-lived crops as well as to boost economic plants and animals. A number of fishery demonstration centers and fresh water fish breed production centers have been constructed to meet the market demand within the province and surrounding areas. The government also plans to construct handicraft centers for bamboos and rattan weaving in the province to produce commercial goods.

Vientiane Capital

Vientiane is the capital and largest city of Laos, on the banks of the Mekong River near the border with Thailand. Total area of the capital is 3,920 square kilometers with an estimated population of the city being 768,743 (2015). The capital consists of 9 districts, including Chanthabouly, Sikhottabong, Xaysettha, Sisattanak, Naxaithong, Xaythany, Hadxaifong, Sangthong & Pak Ngum.

Bolikhamxay Province

Bolikhamxay is a province of Laos, located in the middle of the country. Pakxanh, Thaphabath, Pakkading, Borikhan, Viengthong and Khamkheu are its districts and Paksan is its capital city. The province is also home to Nam Theun 2 Dam, the country's largest hydroelectric project

Bolikhamsay province covers an area of 15,977 km². The province borders Xiangkhouang Province to the northwest, Vietnam to the east, Khammouane Province to the south, and Thailand to the west. The province includes the Annamite Range, stretching east to Vietnam, while to the west are the Mekong River and Thailand.

The population is 276,194 people (incl. 138,419 female), living in 47,396 households and 297 villages. The population density is 17 persons/ km2 with the highest numbers and densities

in the lowland strip along the Mekong River. Bolikhamxay is rich in natural resources and mining, especially gold, silver, copper, lead, salt, and coal. It still has magnificent forest areas covering 55% of the whole province. There are abundant water sources, streams, rivers, and the large Mekong tributaries of Ngiap, Xan, and Kading with high potential for hydropower development and irrigation schemes. The land is fertile and suited to agricultural production and animal rearing. The province has diverse tourist attractions of natural, historical, and cultural importance.

3.3 Socio-economic conditions of the people in the project area

3.3.1 Ethnic groups in Laos².

There are about 35,620 households from 11 ethnic groups in the project area, of which Khmou and Hmong are the two biggest groups considered as ethnic minorities Out of 37,620 beneficiary HHs, 1,700 HHs or around 5% are of 6 ethnic minority groups defined as Indigenous People under OP/BP 4.10. These ethnic groups include Hmong (376 HHs), Iewmien (70), Bru or Makong (922), Khmu (269), Katang (28) and Pray (26 HHs). These project beneficiaries live in 15 agricultural districts of 5 provinces

Nø	Ethnic groups	Households
1	Lao	30,910
2	Nhouan	1,955
3	Phouthay	1,518
4	Lue	1,470
5	Makong	922
6	Hmong	376
7	Khmou	269
8	Tai	76
9	Iewmien (Hmon	70
10	Katang	28
11	Pray	26
	TOTAL HHs	37,620

Khmou (there are a total of 269 households living in the project area, including 24 HHs in Thaphabath, Bolikhan districts of Bolikhamxay, 81 HHs in Vientiane, and 164 HHs in Xayabouly.

Khmou are said to be the oldest inhabitants of northern Lao PDR, and are now settled throughout all Northern provinces and as far as Bolikhamxay Province. Next to the Lao Loum, they are numerically the largest ethnic group in the country. They have several sub-

² The Lao National Government does not use the term "Indigenous People". Decree No. 213/NA of the Lao National Assembly dated 24 November 2008, identified 49 tribes in Lao PDR and classified these under four Ethno-Linguistic Groups: (i) Lao-Tai: 8 Tribes (Lao, Tai, PhouThay, Leu, Nhouan, Yang, Xaeh and Thay Neua); (ii) Mone –Khmer: 32 Tribes (Khmou, Pray, Xing Moun, Phong, Thaen, Oedou, Bid, Lamed, Samtao, Katang, Makong, Tri Yrou, Triang, Ta Oy, Yeh, Brao, Katu, Harak, Oy, Kriang, Cheng, Sadang, Xuay, Gnaheun, Lavy, Pa Koh, Khmer, Toum, Ngouane, Moy, Kri); (iii)Hmong- lu Mien: 2 Tribes(Hmong, lu Mien); and (iv) Tibeto-Chinese: seven Tribes (Akha, Phunoy, Lahu, Sila, Hayl, Lolo, Hor). Source: 49 Ethnic Groups in the Lao Community, National Assembly of Lao PDR, Ethnic Affairs Committee, UN Programme to support an Effective Lao National Assembly, July 2009.

groups which co-reside, including Rok, Luu, Ou, and Khrong. Khmu are strongly governed by spirits, both benevolent and dangerous, which influence foundations of customary law. The world of the spirits consistently influences gender relations, land use and property rights, and change disturbs the relationship between the Khmu and the external world. Different levels of spirits govern different choices made by men and women – some spirits are territorial, associated with particular places or locations, others are associated with the village and under the authority of the territorial spirit. The belief in spirits can influence the choices made by men and women in their daily routine, seasonal activities, property rights and relationships between the sexes. Other spirits govern the structure of the household and are normally ancestral who continue to protect the well-being of families. Lastly, there are individual spirits, linked to the household.

Each sub-group may be composed of several patrilineal clans called "ta". Ta names are totemic, meaning they are taken from a natural object, or animal, or bird, to which the clan considers itself closely related and usually has prohibitions associated with the totem. Among Khmu Lue in Oudomxay, ta may include Teu Mong (a kind of civet cat), Teu va (a kind of fern), Teu Kok (a species of bird), etc. The totem is the household spirit, and membership of a "ta" depends in which house a child is born. Ta membership determines marriage choices and by association, property rights.

The Khmou are an ethnic group of Southeast Asia. The majority (88%) live in northern Laos where they constitute one of the largest ethnic group, comprising eleven percent of the total population. The Khmou were the indigenous inhabitants of northern Laos. It is generally believed that the Khmou once inhabited a much larger area but after the influx of Thai/Lao peoples into the lowlands of Southeast Asia, the Khmou were forced to higher ground (Lao Theung), above the rice-growing lowland Lao but below the Hmong/Mien groups (Lao Sung) that inhabit the highest regions, where they practiced swidden agriculture. The Khmou of Laos resides mainly in the North, ranging across 10 provinces including Luang Prabang, Phongsaly, Oudomxay, Bokeo and Lung Namtha Provinces. The Khmou language belongs to the Austro-Asiatic language family, in which several closely related languages are grouped together forming the Khmouic branch. The Khmou are an agricultural society, although gathering, hunting, trapping and fishing are parts of the Khmou lifestyle. Khmou crops include rice (especially white and black sticky rice), corn, bananas, sugar cane, cucumbers, beans, sesame and a variety of vegetables. Most of the agricultural work in Khmou villages is done communally, so as to combine the strength and finish the work quickly. Harvesting of wild rice is generally performed by the village women. Rice is stored outside the village in elevated structures to protect from mice and rats. Khmou elders are traditionally the most important people of the village, and are responsible for resolving all village disputes. Village leaders included the shaman (knowledgeable in spiritual medicine), the medicine man (knowledgeable in herbal medicine), the priest (based on family lineage of priesthood), and the village headman (in modern times chosen by the Laotian government). Laotian Khmou communities generally have localized justice systems administered by the village elders. Although the Khmou is the second largest ethnic group in Laos, they are also the poorest. Throughout the history of Laos, the Khmou have lacked political power, education and a role in administration6 .The results of a study4 on Khmou women show that they experience barriers to participation in project activities. The barriers include language; education; cultural norms; health issues; workload; resettlement; poverty; low self-esteem; staff and project approach; the village administrative structure; fewer opportunities with development projects; and limited formal access and control over assets. To overcome these

barriers and to participate in development projects Khmou women would benefit from greater support from project staff such as teacher/trainer; learner; follower; advisor; demonstrator/role model and advocate. To empower women to overcome barriers themselves and participate more fully in community development requires both men and community to provide support and acceptance.

Hmong

There are 376 HHs living in the project area, primarily in Xayabouly (257 households in Phieng and Xienghone districts, 106 hhs in Bolikhamxay.

Hmong Khao ("White" Hmong) is one of five Hmong sub-groups present in Lao PDR. After Khmu, Hmong has the largest population of all ethnic groups in the country. The Hmong trace their origins in Lao PDR to waves of migration from China in the early years of the 19th century. Causes for this migration attributed by both Hmong respondents and research sources include historical conflict between Hmong and Han Chinese, population growth, unacceptable burden of taxation and refusal to integrate with Han Chinese. Migrated Hmong are now found throughout the northern provinces of Lao PDR, southern Yunnan, northern Viet Nam and northern Thailand.

Typically, Hmong have settled in the highest areas of the upland, even preferring to be buried on mountain tops. They have a reputation of being both hard working and more recently, assertive in Oudomxay Province over acquiring land and property. Hmong Khao are also structured by clans, or seng (e.g., Toe, Veu, Tsiong, Moa, Lee, Va, Ya, Ha, Ja, and Keu). The seng determines the boundaries of land and property rights, and protects the role of men as transmitters of those rights by constraining women's choices, particularly as to who and when a woman may marry.

The Hmong are an Asian ethnic group from the mountainous regions of China, Vietnam, Laos, and Thailand. Hmong are also one of the sub-groups of the Miao ethnicity in Southern China. Historically, Hmong society is patriarchal. The Hmong culture usually consists of a dominant hierarchy within the family. Males hold dominance over females and thus, a father is considered the head in each household. Hmong are generally group oriented, so the interests of the group come before the interests of individuals. They belong to the Hmong-IuMien ethno-linguistic group and either speak the "Hmong Der" (White Hmong) or "Mong Leng" (Green Hmong) dialect. Hmong are skilled at hunting, mixing herbal medicines and raising animals, particularly horses. Hmong believe in a variety of natural, ancestral and supernatural spirits and their religious practices incorporate elements of ancestor worship. Intricate embroidery and heavy silver jewelry adorn their clothes. The Hmong constitute about 8% of the Lao PDR population. In the past, the Hmong used to be called the Miao or Lao Soung. Lao Soung means "Lao of the mountaintops." The expression refers to where the Hmong traditionally liked to live. These names are no longer considered appropriate, and the Hmong prefer to be called by their ethnic group name. The Hmong are a proud ethnic group, maintaining their distinctive culture and traditions. They cannot marry within their clan, or even a person of their own family name. This means that men and women often have to find a spouse from outside of their village. Traditionally after marriage, a woman will then follow her husband and severe ties with her parents. The Hmong practiced shifting cultivation of unirrigated upland crops; buckwheat, barley, and millet were grown at the highest altitudes, and rice and corn (maize) at lower elevations. Virgin forest was cleared and burnt off for the planting of new fields; when soil fertility declined (usually

after several decades), the entire village would relocate. New villages could be a considerable distance away from a group's previous locale. In the late 19th century the opium poppy was introduced into the highlands by outside traders, and the Hmong began to cultivate it in an integrated cycle together with corn and dry rice. They sold opium to itinerant traders, usually Chinese, in return for silver. By the late 20th century, shifting cultivation had become impracticable except in a few remote areas. In response to government programs in Thailand, Laos, and Vietnam, the Hmong have now largely abandoned shifting cultivation of crops such as rice and corn or the gardening of flowers, fruits, and vegetables, which they sell in lowland markets.

Religions

Around 67 percent of the country's population are Buddhist, other religions including animism accounted for about 30.9 percent,1.5 percent are Christians and less than 1 percent are Muslims and Bahai. Catholics make up 0.6 percent of the population. According to the socioeconomic Atlas of Laos, there is a high rate of Buddhism presence along road networks and in provincial and district towns. However as soon as we leave these central areas and move towards more peripheral and rural areas, Animism becomes the dominant belief. The villages where both Animism and Buddhism co-exist are quite abundant and heterogeneously distributed across the country.

3.3.2 Economic activities

People, in general, are constantly searching for ways of providing for their own and their families' livelihoods and so engage in many highly diversified activities thus the economic activities of a population are often very complex. For example it is very common for many people to be primarily farmers, but to engage in non-farming activities at the same time. Furthermore, people may be involved in household duties, caring for children, sick or old people, or they may still be going to school. So it is no surprise that the assessment of the economic activity of a population is a complex undertaking.

The 2005 National Population and Housing Census indicated that the total work force in the Lao PDR is made up of equal percentages of men and women. However, data from the same census indicate higher ratios, in terms of economic activity, of women to men. In fact, in two thirds of the villages of the Lao PDR, women constitute the majority of the work force. The data comparison reveals that in many villages where the sex ratio is balanced, women dominate the economically active population and hence have a higher work load than men. This imbalance is even more significant when it is taken into account that household duties are not even counted as an economic activity and that these are largely being assumed by women thereby increasing their work load even more. The table clearly shows that men dominate in skilled activities whereas women are heavily involved in unpaid family labor. This ratio is even higher for poorly educated women.

The results of the 2005 Census showed that the majority, about 78.5% of the population, worked mainly in agriculture and 21.5% did not. Even though the economic importance of agriculture at the national level is nowadays slowly shifting to the secondary and tertiary sectors, it remains the main sector of employment of the Lao population throughout the country in all the provinces - except for Vientiane Capital.

In the Lao PDR 67% of all households operate agricultural land, which they consider their own. According to the results of the Population and Housing Census of 2005 the average size of agricultural land throughout the country is 2.11 hectares. Households operating agricultural land are defined as those households which own or use land for agriculture as if they were the owners. Taking into account the very high percentage of the population whose main activity is agriculture (see Map G.6) the importance of operating one's own land becomes obvious: households which do not have access to their own land may be much more vulnerable to debt as a result of adverse weather or market conditions.

If a household has access to a large piece of land then the risk of an insufficient supply of food and a loss of income is small. However if the average size of agricultural land per household is less than 1 hectare this indicates food insecurity at both the provincial and national levels. It should also be borne in mind that other factors such as the type and the intensity of agriculture, the inputs used, labor availability, etc. are also important and that a considerable proportion of farmers in the Lao PDR still do not practice permanent agriculture. Although many of these farmers may have small plots they still rely on the customary access to fallow land, which is not measured by this indicator. Furthermore, many people engage in other activities which are important in terms of their subsistence, such as animal husbandry, collecting of wild and forest products, hunting, etc.

Geographically, it is interesting to note that there is a pattern showing increasing land sizes going from the high to the lowlands can be attributed to the definition of the indicator itself, which focuses on permanent agriculture. Furthermore, two important factors could explain the increase. The first is the availability of the total land suitable for agriculture including its quality in terms of topography and soils. The second is the availability of labor and machinery for agricultural cultivation. Many upland households may be seriously constrained by the work force available but also by the lack of machinery and capital.

Average size of agricultural land per household

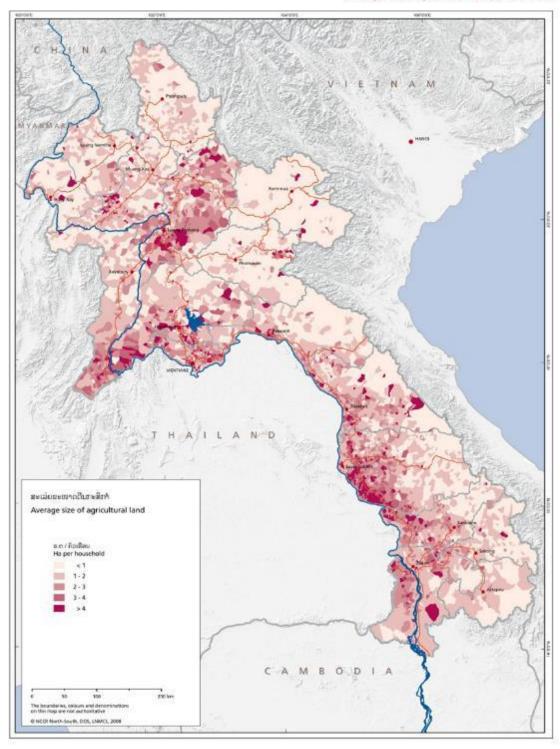


Figure 1 - Average size of agricultural land (Source: 2005 National Population & Housing Census)

3.3.3 Water use

Water for drinking and cooking in the Lao PDR is generally available in sufficient quantities especially during the six months of the rainy season and the two months after. However, it is

not necessarily of a quality acceptable for human consumption. Therefore the information on what sources of water a household uses represents an important information.

The Population and Housing Census of 2005 reported that 23.8% of households used open wells or boreholes, 22.0% used closed wells or boreholes, 20.5% percent used rivers, streams or dams, 12.9% used piped water and less than 1% used rain water or other sources. It is assumed that other sources include UV or ozone treated water sold at a reasonable price for a 20 liter bottle in most easily accessible districts and villages. In remote villages large Chinese style clay water containers are filled with rainwater, originally for drinking and cooking, but now used more for animals, for showers and for washing clothes. Generally speaking it can be said that about 35% of the population have access to safe drinking water, consisting of either water from pipes (12.9% of population) or protected wells or boreholes (22% of population).

In the east of the central region and in the south most households use water from rivers, streams, ponds or dams. In the north in the high mountains most of the households use water from streams or fresh water springs. The use of closed wells or boreholes can be seen mostly in some areas of Xayabouly province, Vientiane province, Vientiane Capital, and the provinces of Khammuane.

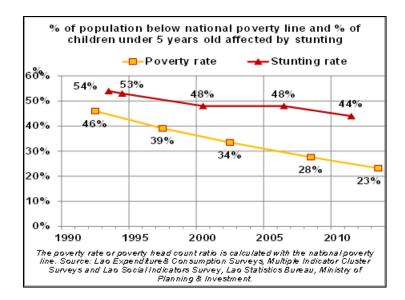
3.3.4 Electricity

Households that have access to electricity is 92 percent of households nationwide.

3.3.5 Nutrition Status

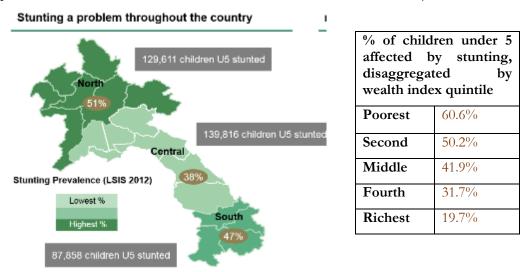
While Laos has experienced progressive economic growth, malnutrition figures still remain some of the highest in Southeast Asia, hardly declining with time. Nearly half of Lao children are chronically malnourished (stunting or height for age), affecting 385,000 or 44% of children under the age of five (CU5). Stunting increases with age, indicating that care practices are inadequate (i.e. caretakers prematurely cease breastfeeding and complementary foods are not safe or suitable). Stunting rates differ drastically across the country with some areas experiencing over 60-70%. Data from the Lao Social Indicator Survey (2011-2012) indicate that 6% of CU5 suffer from wasting (weight for height, an indicator for acute malnutrition), and 27% were underweight (weight for age, a composite indicator of both chronic and acute malnutrition). Micronutrient deficiencies, indicative of insufficient access to diverse foods, are substantial including Vitamin A and iron (up to 59% of children under two are reported anemic)3.

³ http://dhsprogram.com/pubs/pdf/fr268/fr268.pdf



There are great disparities in stunting across the country with the highest incidence found in the far North and South of the country. Recognizing these differences, the Government of Laos has identified three priority convergence Provinces: Luangnamtha, Oudomxay (North) and Saravane (South).

Further to geographical variations, stunting levels also differ considerably by socio-economic and ethno-linguistic groups; levels are as low as 33.4% among Lao-Tai and at least 10-30 percentage points higher for any other groups, the highest incidence found among Chinese-Tibetan and Hmong-Mien minorities. With each incremental increase in income, there seems to be a positive association with a reduction in stunting, decreasing by 10 percentage points per wealth quintile: Poorest quintile 60.6; second 50.2; middle 41.7; fourth 31.7; richest 19.7. This is drastic difference, but it is still startling that nearly 20% of children under five in households of the richest quintile are still afflicted by stunting (See Annex 10 on Nutrition practices of farmers which was collected from Round 2 consultation).



(from Nutrition Stakeholder and Action Mapping Lao PDR: Analysis (MICS 2011-2012)

3.4 Gender Analysis

3.4.1 Purpose

The purpose of the gender analysis for this project is to **identify gaps** between males and females in agricultural production. Then, on the basis of the identified gaps, **assess the extent** to which the identified gaps are likely to affect the likelihoods of achieving the intended project development outcomes and **propose actions** that close the gaps - to enhance the achievement of the intended results (outcome level).

3.4.2 Methods

Because of time and resources constraints, the gender analysis for this project is conducted on the basis of a) **review of literature** related to gender issues in agricultural production in Laos PDR, b) **consultation with project stakeholders** in select project provinces using focus group discussions and key informant interviews. With regards to review of literature, the review focuses on key reports prepared by institutions such as the WB, ADB, FAO, UNWomen, IFAD... Focus was made on rice production which is the most important crops for farmers in the project area. Rice is also the product that the project aims to enhance the efficiency of the supply chain, as well as the value chain to enhance the benefit for the rice farmers through established partnership between rice farmers and rice millers/traders/wholesale.

3.4.3 Findings from Review of Literature

Laos ranks 43 of 144 countries in the 2016 Global Gender Gap Index of the World Economic Forum, yet significant and costly gender gaps remain in agriculture.

Agricultural Resources

According to the report prepared in 2005 by the Gender Resource Information and Development (GRID) Center of the Lao Women's Union and the World Bank, about 80 percent of the total workforce in Laos PDR (2.4 million people) are involved in agriculture, of which women accounts for 54 percent of the total workforce. Women in Laos play a critical role in agriculture. They are responsible for maintaining their family's food security. However, the role of women is still undervalued. Despite men and women spend similar amounts of time on agricultural work, men spend more time on income generating activities (including agricultural work). They are considered household head, thus, representing their families at all official village meetings. Because of limited literacy (compared to men), women, especially those from ethnic minority groups, are unable to equally participate in village development activities.

Economic Participation

Despite of important contribution to family's livelihoods, women faces challenges that affect their personal development. For example, it is customary that women are not allowed to work far from the village or participate in community activities. As such, they have limited opportunity to learn and update farm skills as well as health care knowledge. As a result, they are involved in low-skilled jobs and thus less opportunities to earn income. They are therefore responsible for more housework, child care and child education.

Education

Although Lao PDR has made quantitative and qualitative progress in education over the past several decades, education indicators remain among the lowest in East Asia. There are stark disparities between urban and rural areas, boys and girls, rich and poor. Within urban areas, the gender gap in education has practically closed. However, rural areas record some of the lowest educational indicators in the country. The most disadvantaged and cut off from services are those living in remote villages, many of whom are ethnic groups. Indeed, a significant proportion of children – especially girls and ethnic groups in remote areas – are out of school. The rate of illiteracy among women is higher than men. Reasons for illiteracy among women vary across provinces, and across ethnic groups. However, poverty, geographic distance, costs, and traditional beliefs appears to be the main reasons. About 35 percent of students enroll in secondary education but only about 5 percent complete the full six years. Vocational training opportunities are limited. Less that 5 percent of Lao children go to university. Many poor families do not see formal education as chance for them to improve their livelihoods. Inadequate attention of parents did not encourage children to attend school. Linguistic barriers and cultural attitudes towards education also perpetuate low human development and the vicious cycle of poverty that many ethnic minority groups face.

Health

Women is expected to take care of their family, including their children. Culture and tradition play an important role in choice of health practices, such as location of child birth, use of birth attendants and sterilization practices. While maternal mortality rate has decreased, this remain among the highest in the region. Delivery at home is still common, particularly among the poor people. This is also due to distance between home and community health center which is significantly different between rural and urban areas. Ethnic groups are among those who have limited access to health care because of their remote geographical area. Women often walk long distances to seek medical help and supplies. Limited roads access and difficulties in transport also contributed to worsen situation. Limited access to health care center is also the main reason why many women do not seek medical treatment.

Vulnerabilities

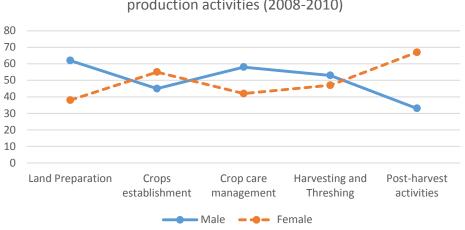
Along with the rapid changes, Lao PDR also face a number of vulnerabilities which have increasingly affected women. Greater economic integration and development have resulted in increasing migration to neighboring countries, particularly Thailand. Associated with migration are a number of risks including sexual exploitation, HIV/AIDS, violence, and human trafficking. The issue of violence against women is also one that is increasingly emerging. New research has shown that many women suffer from abuse particularly within the household, but few have legal or psychological recourse. Opium abuse is also affecting women, particularly those from poor ethnic groups who have to deal with their family members who are opium-addicts.

Labor Division

Rice is the main crop cultivated by the majority of farmers in Laos. Generally, there is a clear division of labor that exists between male and female. This is particularly true in irrigated lowland area where irrigation is more reliable. However labor division is not clear among

farming households in rain-fed area. This is probably because of unpredictable weather condition. Women are typically tasked with housework, which is considered 'light' such as doing house chores, feeding animals, pulling seedlings and managing rice production income. These works, however, time-consuming. Men generally undertake heavy works, such as land preparation, land inspection for cultivation of rice, hand or machine threshing and hauling harvested rice, including other tasks that are shared by both women and men (See Figure 1 below).

In some areas, traditional labor division is changed due to lack of men labor who migrate in search for jobs in the urban areas, leaving women with more burden at home.



Percentage share of female and male labor input by rice production activities (2008-2010)

Figure 2 - Data of IRRI. Graph drawn by author.

Labor division is changed as a result of changes in agricultural practices, such as increasing mechanization, and the fundamental shift from subsistence to commercial agriculture, have transformed the gender division of labor, and gender relations. In these instances, men typically assume greater control of land, farming equipment, and marketing ventures. Increased mechanization, irrigation are expected to shift the decision making power to men as men are expected to decide these aspects, including use of agricultural input such as pesticide and fertilizers, and in some instance, seeds. Irrigation is also managed differently depending on upland, lowland (rainfed and irrigated).

Women's Role in Decision-making.

Lao PDR is the second highest proportions of women in lower houses of parliaments (the National Assembly) in the region. However, women remain under-represented in provincial and district authorities. Village-level committees are dominated by male. Within ministries and agencies, few women are appointed in senior level positions. Prevailing custom and habits tend to prevent women from participating in economic activities and decision-making processes – both within their family and outside.

In terms of decision-making in expenditure, it is apparent to see from the FAO 2010 data that female headed house are likely to spend more on food, house, and medical care – compared to male headed households (See figure below).

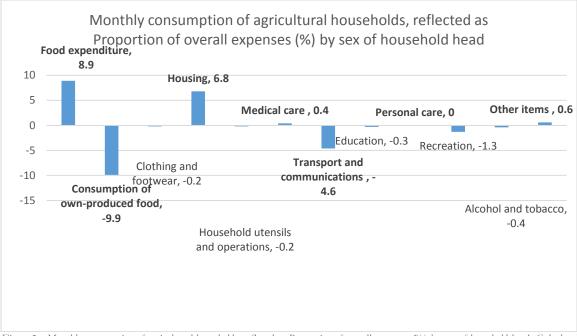


Figure 3 - Monthly consumption of agricultural households, reflected as Proportion of overall expenses (%) by sex of household head. Calculated and graphed by authors using from FAO data.

Farmers' Access to Resources (productive tools, land, extension services/ technologies, loans)

Land Access

Female headed households have less diversified cropping patterns than male headed households. According to the report by FAO (2010), at national level, 96 percent of all male and 88 percent of all female headed agricultural households have access to agricultural land. Differences are observed in Southern, Northern and Center regions. According to survey, a significant source of gender inequality between male- and female-headed households in agricultural sector that could be identified, particularly in agricultural land such as land size and the number of plots. National level results show that the average size of land that female headed households have access to is 16 percent smaller than land of male headed households. Further, the proportion of female headed households that have access to more than 1 plot is almost half that of male headed households.

Water Access for Irrigation

Access to water has also been identified as a major constraint to improvements of rice-based farming systems. This includes farms within large-scale irrigation schemes as well as those drawing on smaller scale, intra-village surface water and groundwater resources. In both settings, there are issues that stems from institutional arrangements for infrastructure maintenance, water distribution, pumping costs, water fee, associated incentives, and the equitable sharing of costs and benefits given limited and variable water supply.

As Loes Schenk and Outhaki Choulamany (1995) noted in their research in 4 provinces in Laos, water schemes used to be maintained by farmers – both men and women, who use schemes. This has been a long tradition. However, as water schemes was modernized which entailed development of water scheme management regulation, such as collecting water fee,

women were not involved in developing such regulation because maintaining water schemes is considered not appropriate for women and that women should take care of their family instead of the irrigation management. The reality is that women are perceived as helpers and followers, they have to ensure money is available for irrigation management and water fee.

However, it is apparent that where project is implemented with opportunities given to women's participation, women do actively participate. Under the ADB-financed Northern Community-Managed Irrigation Sector Project, implemented from 2004 to 2011, helped bring down absolute poverty from 64% in 2005 to 40% in 2009 in 11 remote, mountainous and poor districts in five Northern provinces of Lao PDR, women were involved in all aspects of project planning and implementation from village consultations to establishment and participation in water user-user associations (WUAs) and farmer producer groups. This happen under 33 subprojects that covered 53 villages and hamlets which is home to 5,620 households. While women's participation in consultation meetings was 30%-60% during the initial implementation period, by project end, it had increased to 49%-65%. Women's participation in project-related activities such as engineering surveys, construction labor, study tours and annual production evaluation meetings ranged between 24% and 41%.

Special emphasis was given to encouraging women farmers to participate actively through the community-based water user associations. WUAs were formed and registered in all 33 subprojects with more than 800 women members (35%), playing an active part in the WUA management committees, often serving as the treasurer and/or accountant. At least one woman from each village was also appointed as a community-level organizer. The District Lao Women's Union (LWU) assisted with mobilizing and training women to be active participants. Women also benefited from diversified farming pilot demonstrations that delivered training on farming techniques on household plots. By 2010, women comprised 41% of participants of the on-farm crop productivity improvement trials. Women were similarly represented in activities related to the system of rice intensification.

Water Access for Domestic Consumption

More male headed agricultural households have access to improved drinking water sources compared to female headed households. About 57 percent of all agricultural households have access to safe/improved water sources (piped water or protected well/boreholes) during the dry season. A large proportion of agricultural households have no access to safe drinking water sources. Further, about 58 percent of all male headed agricultural households have access to improved drinking water sources compared to 48 percent of all female headed households - a difference of 10 percentage points. Other important sources of drinking water in the dry season are unprotected wells/boreholes and natural water sources like rivers, dams and lakes. Among male headed agricultural households, 18 percent obtain water from unprotected wells/boreholes and 14 percent from rivers, dams or lakes. For female headed agricultural households, this is 20 and 12 percent, respectively.

Labour Access

At country level, Laos faces a farm labor shortage in rural area because on increasing migration of rural labor to urban area in search for income opportunities. According to Onphanhdala (2009), in rice cultivation, household members serves as the major farm labor. Only one-fourth of farm households hired outside labor in 1998, mainly for land clearance. In the north where shifting cultivation is widespread, most farmers employ

laborers on an exchange basis. Until recently, by 2015, lack of labor for rice farming is still prevailing. This is because of two main reasons: (a) demographic changes caused by a declining population growth rate (reducing the absolute number of new entrants into the labor market and increasing the relative size of the aged population, including aging farmers); and (b) the migration of the young people in the workforce from the agricultural sector in search of higher income opportunities in the non-farm sector in the urban area of Lao, and also in Thailand.

Livestock Production

At provincial level, in all provinces, proportionally more male headed households than female headed households are engaged in livestock production. 57 percent of all agricultural households in Lao PDR raised livestock (excluding poultry). More male headed agricultural households are engaged in livestock production: 58 percent (455,627) of all male headed agricultural households raise livestock compared to 39 percent (15,684) of all female headed households; a difference of 19 percentage points. For both male and female headed agricultural households engaged in livestock production, local pigs, buffaloes and cattle are the main livestock raised: 62 percent of male headed households engaged in livestock production keep local pigs, 55 percent keep buffaloes and 52 percent cattle. For female headed agricultural households these numbers are 58 percent, 58percent and 47 percent, respectively.

Loan Access

Female headed households have less access to loans, especially formal loans to invest in businesses, according to FAO (2010). According to the 2002-03 survey which collected data on households that owned money or goods to anyone over the past 12 months, including the sources of loans, the reason for borrowing, kind of security provided for the loan, at national level, only 15 percent of all male and 10 percent of all female headed agricultural households owned money or goods to anyone at the time of the census.

Loan purpose. Investment in agriculture is the main reason for both male (36%) and female headed households (28%) with outstanding loans. Other main reasons for outstanding loans for male headed agricultural households are cash needs for health-related expenses and consumption. Among female headed agricultural households, the main reasons for outstanding loans other than investment in agriculture include consumption (18%), house repairs (16%) and health related expenses (14%).

Sources of borrowing. Among households owning money and goods to others, the neighbor is the main source for borrowing. This is particular for female headed agricultural households: almost 74 percent of all female headed households with outstanding loans borrowed from neighbors compared to 52 percent of male headed households. A second important source of borrowing is the bank (state enterprise bank), particularly for male-headed households: 22 percent of male headed agricultural households had outstanding loans with the bank compared to 14 percent of female headed households.

Interest. Among agricultural households that provided loans, about 24 percent charged interest (almost half as which that reported by households who had taken the loans). Among male headed agricultural households lending money and goods to others, 25 percent reported to charge interest (Chart 4.7). For female headed households this is 21 percent.

Source of lending. Neighbors are reported as the most popular lending source (69.9%), followed by private persons (39.2%) and organization (9.9%). The WB (2005) also noted that suppliers of (agricultural) inputs is important source of loans for farmers.

Electricity Access

Access to electricity for lighting through the public network is common among 55 percent of all agricultural households in Lao PDR. A further 6 percent have access to electricity through a generator or battery, thus leaving about 39 percent of all agricultural households with no access to electricity. Female headed agricultural households have greater access to electricity for lighting (77%) than male headed households (60%): a difference of 17 percentage points.

Access to economic opportunities – market access, market information, contract farming

Market Access

Women have limited access to market because of their traditional role of taking care of household. A study conducted by Wocan (2012) noted that Chili Production in Salavanh province is established and headed by a woman. Even though the leader is a woman, other women still encounter some challenges to actively participate in the production group activities because of their household responsibilities and lack of negotiation skills. Women members also said they had difficulty accessing markets outside their immediate areas because they could not travel far and long outside the province because of their household responsibility. This is due to their household responsibilities. They also said they did not have enough skills to communicate and negotiate with traders in the market place. Also, substantially fewer female headed households are able to market cereals compared to male headed households.

Market Information

Women farmers have less access to agricultural information and extension services because of their predominant household role (according to the World Bank). Women are typically not invited to training which are typically organized at community centers because men are expected to go outside the house and represent their family in village meetings. In Laos, it is the same. Also, generally lower educational level (compared to male) also restrict them from being invited to training where male who is generally higher in terms of educational attainment is the contact farmers who receive the training knowledge. As such, women typically receive information on farming techniques through their husbands, or informal sources such as leaflet, informal sharing among women.

WOCAN (2012) noted that women are unlikely to engage with male, Lao speaking extension workers, even when the extension workers provide advices and inputs that relates to the women's livelihood activities. Yet, project evaluations confirm that providing extension training and technology only to male farmers does not guarantee that the information and inputs will reach other household members who can most effectively use them.

Contract Farming

Crop production systems in the Lao PDR remain primarily subsistence oriented, with minimal use of improved varieties, fertilizers, and pesticides. Although the use of modern inputs is increasing, their adoption has largely been confined to production in the Mekong river corridor (Schiller et al., 2006). Farmers are generally excluded from the growing

markets for high-value crops due to the lack of extension mechanisms and credit provision systems.

According to ADB (2008), contract farming has spread rapidly in the Lao PDR in recent years. Growth in domestic demand for agricultural produce has been driven by urban expansion, providing new market opportunities for small farms, especially those located near urban centers. There is also increasing regional demand from Thailand, Viet Nam, and China for specialty crops including hemp, mulberry paper, castor bean, Job's tears, and palm nut, all of which are produced in Laos.

Adoption of new technologies by risk-averse subsistence farmers is also constrained by the absence of risk-sharing strategies. According to ADB (2008), contract farming is an effective tool to increase the incomes of smallholder farmers in rural areas where market failure is prevalent. In the study, it was found that contract farmers have better access to inputs and credit and an assured market for their produce, which enables them to earn higher profits. The evidence also suggests that contract farmers are more likely to diversify production into other commercial crops or livestock, leading to increased incomes and more secure livelihoods. The contract arrangement thus appears to be effective in facilitating the transition of small farmers from subsistence to commercial production.

Contracts can take a wide variety of forms, ranging from a simple verbal agreement between farmer and trader to a written contract that explicitly details the obligations of each party. However, the majority of contract farming ventures in the Lao PDR are informal arrangements between farmers and small traders. Firms have reported losses due to farmers violating the contract to sell their crops on the market, while farmers have reported losses because the contracting firm did not share the cost of a failed crop or did not collect the produce after harvest. In such cases, there is no legal avenue for farmers or firms to recover losses.

Empirical evidence from ADB and others show that contract rice farmers cultivated higher yielding, improved rice varieties, and earned higher incomes than non-contract rice farmers under similar agro-ecosystem and socioeconomic conditions. Contract rice farmers are more likely to diversify production into other commercial crops or livestock, leading to increased incomes and more secure livelihoods. Thus, farmers are motivated to join. However, reality also show that contracting firms generally favor contracts with larger farms and tend to bypass smaller producers who are characterized of lack of skills. This relates to issue of Targeting and Inclusion (as mentioned at Recommendation 2 (above). Thus, smallholder potentially failing contract farming could be supported in terms of increasing their crop yield and quality on select crops that meet the market demand. The project could help farmers to connect with potential market. Poor households could be provided with access to good varieties and quality seeds that help them start improving crop yield and quality of farm produce.

Contract farming appears to be particularly appropriate for rural areas where transport infrastructure has recently been established and in transition economies where institutions to facilitate market exchange are in an early stage of development.

Participation of male and female farmers in production processes, involvement of male and female famers in making decisions on the farms, using income.

Rice production

In 2013, a study was done by AIT focusing on rice farmers. The study examined the status of women in the society and their contribution in the existing farming system. The research carried out using different tools to assess gender roles within the rice farming practices. These provided some insights on workload as well as information on productive/reproductive roles and access/control of key resources.

In terms of access to and control of natural productive resources, both men and women have access to. However, when it comes to decision power, women has less decision on control of resources such as land, production fields, use of livestock as draft animal, labor forces and farming practices. They are absolutely absent in issues of irrigation.

DECOUDOEC	Acc	ess to	Co	ontrol of
RESOURCES	Men	Women	Men	Women
Land (Tenure)	$\sqrt{\sqrt{1}}$	\checkmark	$\sqrt{\sqrt{1}}$	
Irrigation	\checkmark	\checkmark	$\sqrt{\sqrt{1}}$	
Production fields	\checkmark	\checkmark	\checkmark	\checkmark
Livestock for motive power	$\sqrt{\sqrt{1}}$	\checkmark	$\sqrt{\sqrt{1}}$	\checkmark
Livestock for raising	\checkmark	$\sqrt{\sqrt{1}}$	V	$\sqrt{}$
purposes				
Fodder, grazing land		\checkmark	\checkmark	\checkmark
Seeds	\checkmark	\checkmark	\checkmark	\checkmark
Supplies (fertilizers,	\checkmark	\checkmark	\checkmark	
pesticides)				
Production Tools	\checkmark	\checkmark	\checkmark	\checkmark
Labour force	V	V	$\sqrt{\sqrt{1}}$	\checkmark
Decision on management practices	$\sqrt{\sqrt{1}}$	\checkmark	$\sqrt{\sqrt{1}}$	$\overline{\mathbf{v}}$

Source: PRA survey, 2013

Figure 4 - Access to and Control of Productive Resources

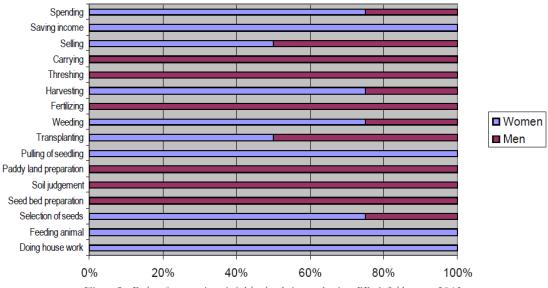


Figure 5 - Roles of women in rainfed lowland rice production, PRA field survey 2013

3.4.4 Gender Consultation Outcome

Division of Labor

Tradition farming.

In the study (round 2 of consultation) that was conducted with farmers of maize, rice and vegetables, it was found that gender-based roles are similar to the common gender stereotype – as described under Section on Gender Analysis. Maize farmers interviewed at Buamlao-phakeo and Senphon villages of Paklay district, Xayabouly province, and vegetables farmers in Cheng and Boungphao villages of Thoulkhom district, Vientiane province typically undertake an in-house roles, such as cooking, child care, fetching water for domestic use, feeding small animal. For the work out in the field, they usually support their husband in certain part of cultivation that are traditionally done by women and shared by women and men, such as land preparation, transplanting, weeding, threshing, harvesting (for maize and rice). Men, however, take a responsibility as characterized by a requirement of a) technical knowledge (such as vet services, specifications of seeds, fertilizers, pesticide), and b) heavy works (such as mechanization, irrigation water, which requires their presence in the field, and interaction with other fellow men).

Because of the above roles, women are typically perceived performing a supporting role to contribute to their family' well-being/income generation activities, rather than an equal or leading role, which means they have less intra-household decision power compared to their husband despite of spending a lot more time than men doing housework. With this role, women are expected to support also other farming works that may arise as contingency (particularly when their family runs short of labor at high season time). The data on number of work items of men and women among rice, maize and vegetable farmers (both contract and non-contract farming) suggested that there number of work items are divided relatively

equal among men and women in a farming household⁴. The data also indicated that the range of work that women undertake is larger than that of men, suggesting that women stands to doing any part of works that may arise during the farming season – given their supporting role.

Contract farming.

Despite of the gender stereotype as mentioned above, we found among rice and maize farmers who are under contract farming that their division of labor (between men and women) were positively changed as a result of contract farming, indicative of a) reduced time spent in the field on the part of women and b) increased decision power for women – compared to the traditional farming practice. Indeed, contract farming requires farmers to investment more in terms of time and learning effort. They need to adjust the labor arrangement to be able to meet the requirements of the business partners – as specified under the contract.

In the table 2 below, findings from the consultation with maize farmers are summarized. The feedback and analysis of feedback suggested that contract maize farmers change their intra-household labor arrangement (between wife and husband) to meet the new technical requirements – as required under the contract with their business partners. It was found that while the key housework, such as child care, cooking, managing money, etc. remain virtually unchanged (except fetching water for domestic use which is now undertaken solely by men), time spent in the field was reduced for women, which does not only lesson typical women's daily work but also open up chance to women to participate in selecting the technology jointly with their husband, which suggested that their decision power over use of new technology (that affect their family's production and income) is improved. It is anticipated that as this process continue, women are more likely to have more chance to participate in activities outside their home, which in turn, improve their decision power within their family and less the house work burden through their husband's shared responsibility (such as fetching water for home use which is now undertaken by solely by male maize farmers - instead of both).

DAILY ACTIVITIES	SAME	IMPROVED	TIME REDUCTION	IMPROVED DECISION POWER	NOTES	
HOME						
Fetching of		Used to be				
water		shared, now				
		full men				
		responsibility				
Child care	Х				Women	
Cooking	Х				Women	
Animal feeding	Х				Both	
Vet	Х				Men	
FIELD WORKS						
Irrigation	Х				Men	

Table 2 - Participation of women in economic activities - a case of maize farmers with contract farming

⁴ Pearson correlation coefficient $R^2 = 0.511$.

DAILY ACTIVITIES	SAME	IMPROVED	TIME REDUCTION	IMPROVED DECISION	NOTES
ACTIVITES			REDUCTION	POWER	
Cultivation					
(time)					
		Used to be		X	
• Selection of		men leading.		Λ	
seeds		Now both are			
		involved			
• Seed bed		Used to be	Х		
preparation		shared, now			
1 1		full men			
		responsibility Used to be	X		
• Land		shared, now	А		
preparation		full men			
		responsibility			
• Transplanting		Used to be	X		
		shared.			
		Continued			
		sharing with			
		men's			
		involvement			
		in the leading			
W/ 1		role Used to be	X		
• Weeding		shared. Now	Δ		
		with men's			
		leading role			
• Fertilizing	Х				
• Harvesting	Х				
• Threshing	Х				
• Selling, incl.	Х				
deciding on					
prices					
APPLY NEW TE	CHNOLO		ides)		
		Used to be		Х	
		shared with			
Use of new seeds		men leading.			
		Now equally			
		shared. Used to be		X	
Use of new		men leading.		Λ	
fertilizers		Now shared.			
		Used to be		X	
Use of new		men leading.			
pesticides		Now shared.			
Mechanization		Used to be		Х	
wittenamzauon		men leading.			

DAILY ACTIVITIES	SAME	IMPROVED	TIME REDUCTION	IMPROVED DECISION POWER	NOTES
		Now shared.			
SPENDING (wh	o decides)				
Family foods	Х				
Health care	Х				
Children	X				
education					
Agri-inputs	X				
Money	X				
management					

Also, comparison of labor division – before and after having adoption of farming contract model among the rice and maize farmer groups, indicated that the number work items, which were undertaken solely by men or women before contract model, were reduced to having more men and women undertaking that work in a shared role⁵. Also, rice farmers appeared to undertake more shared role after they change to contract model (See Figure 6 below, and Annex 9 for details).

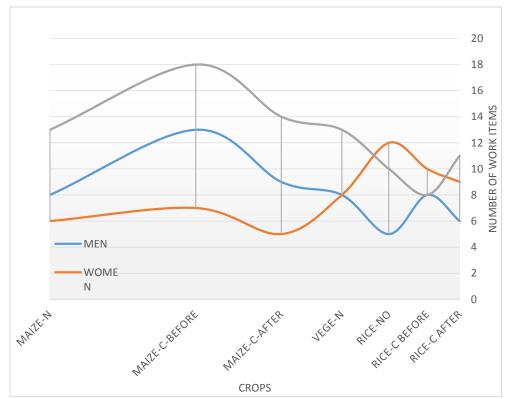


Figure 6 - Labor Division among rice, maize and vegetable farmers - indicated through the number of itemized works of housework and agricultural production

⁵ There is a weak correlation between the number of work items done by men and by women (R^2 = 0.36). However, the correlation is stronger (R^2 =0.46) for women and shared role, and men and shared role (R^2 =0.65).

Decision on family's expenditure

In terms of decisions on expenditure (family food, health care, education for children), while women in Xayabouly make decision on their own (except decision on agricultural inputs which are shared), these decisions are shared between men and women among vegetable farmers in Vientianne provinces.

Summary of analysis

From both secondary data sources, and consultation with local peoples, it is apparent that:

- Division of labor between men and women in the project areas is similar to the traditional gender stereotype in Laos.
- Men assume heavy works such land preparation, fetching water, irrigation, and poisonous works such as pesticide spraying, attend community events whereas women undertake home roles, including child care, food preparation, feeding animal.
- However, empirical data indicated positive changes for the case of maize and rice farmers adopt contract farming, suggesting there is an intra-household adjustment of labor division to meet the requirements as agreed under the contract).
- Division of labor in contract farm model was adjusted towards optimization to overcome family labor shortage to be able to respond to contract requirements. This adjustment contribute to reducing work burden on women on a daily basis through reduction of time, while at the same time improving women's decision power given their increased influential role with regards to adoption of new technologies. This opens up opportunities to them to learn and socialize.
- Agricultural extension. Farmers however are not pleased with the current extension services from both government (given the limited number of visits for technical support), and from the millers, who did not provide them technical support as they wished.
- **Contract Agreement and Trust**. Farmers rely on millers/retailers who provide them agricultural input (for their crop). However, they think the prices they got paid by millers are very low. Also, risks of crop failure is not shared by millers. This also affect the way they set up the contract. Farmers tend to prefer verbal agreement, which allows them chance to sell their rice (upon harvest) at a higher price with other millers (not with the miller they make verbal agreement with at the beginning of the crop).
- Lack of organization of contract farming. Interview with farmers at the study sites suggested that they are dealing with miller on their own, not as a group which affect their price negotiation power.
- Nutrition. Farmers use most of the food they grow to ensure nutrition for their families. However, many farmers who focus on main crop may not have a diversity of foods to ensure well balanced diet for their family.

For gender action and monitoring plan, incorporating the gender findings, please see Section 4.3 for approach to developing Gender Action Plan, and Annex 3 for Gender Action and Monitoring Plan.

3.5 Potential Impacts of the Project

3.5.1 Positive impacts

The project will bring about overall positive impact. In particular, the following key positive impact are anticipated:

Outcome at Project level

With farming communities:

- Improved income, produce quality at household level. This is achieved through activities related to a) provision of training for farmers on production techniques, b) access to improved seeds and irrigation system, and c) marketing and business development through business partnership. Target groups for these activities include farmers producing rice, maize and vegetables.
- Improved nutritional knowledge on the part of target group, including non-target group. This is achieved through communication campaigns using existing materials (i.e. IFAD materials) to disseminate nutritional knowledge, nutrition best practices, and to promote behavior changes among target groups (whose income is improved as a result of project support).
- Improved gender equality through improved women status (decision-making power and control over resources) through all projects activities that women could participate to enhance their role, decision power both within their home and community. Both men and women in the target group will be given with opportunities to participate in project planning, implementation, M&E, thereby improving gender equality.

With research and extension communities:

• Improved research and extension capacity at central and local levels: Address weaknesses in seed production, multiplication, and certification systems to improve farmers' access to good quality seeds. The project would support: (a) National Agricultural and Forestry Research Institute (NAFRI) and its centers to produce foundation seed (R1) and registered seed (R2); and (b) seed multiplication groups (i.e. provincial seed centers, millers, and farmer seed groups) in producing certified seed (R3) which will be distributed and/or sold to farmers for planting. In terms of extension services, the project will strengthen technical capacity of extension agencies to improve agricultural extension quality for farmers. They will also support farmers by facilitating the re-organization of farmers into production groups to facilitate more effective agricultural extension.

Outcome at Policy level

• Improved agricultural public services, including adaptive research and extension service capacity on the part of NAFRI, PAFO, DAFO and Department of Agricultural Land Management (DALaM) – through training activities, extension services, and adaptive research to support on-going projects. The results from the implementation of these activities will inform the design/adjustment of policies related to development of value chain for rice, maize, vegetable, contract farming model through agri-business partnership. Lessons learned will also be drawn from project implementation.

• Lessons learned. Regular project review (annual, mid-term and end-term) allows that project to evaluate if the desired project outcome are achieved, and if adjustment needs to be made to ensure the change process for the project on track. Lessons learned could be drawn at mid-term and end-term milestone that allows Government of Laos PDR to adjust their interventions at policy level, which increase development effectiveness under Government's program and projects financed by other donor organization.

3.5.2 Adverse impacts

Social

- Land acquisition: There are some insignificant permanent and temporary impact that may affect the land, production activities, and livelihoods of local peoples. This is due to the rehabilitation of the existing irrigation channels. These impact are anticipated to be minor and localized because of the nature of the repair works which will be carried out on the existing irrigation structures. Therefore, these impact are manageable and reversible.
- **Temporary disruption to crop production:** it is anticipated that restricted access to irrigation water during the construction period are likely to take place. However, such restriction of water access could be avoided by appropriate construction measures, such as conducting construction during the dry season to avoid/reduce the possibility of irrigation water restriction, or diversion of channel to ensure continuous water access.
- **Temporary environmental impact:** dust, noise, increased traffic as a result of construction operations may affect the income generation activities of local people who run shops, local businesses, etc.). If avoidance is not possible, these impact will be compensated for if they affect the income generation activities of local peoples.
- **Inclusion:** Poor farming households, including poor ethnic groups, may potentially left behind in a way they could not become project beneficiaries in agri-business partnership because of small farm size, remote geographical location (hardly accessible), limited farming practices, cultural norms and practices. Plan is developed to ensure the project promotes social inclusion through a range of activities that are cultural appropriate to ethnic minorities, and poor farming households who are keen to participate to improve their livelihoods.
- Potential risks for ethnic groups: Impact screening and social assessment conducted during the project preparation identified potential (minor) adverse impacts on the PAPs including ethnic groups as mentioned above, including a) permanent and temporary impact related to land acquisition, b) temporary impact on income generation activities/ agricultural production during construction (including engagements with contractors), and c) possibility of being excluded from project benefits. There are also potential risks that are related to a) limited effectiveness of project activities that target ethnic groups because of the lack of intervention methods that could fully and appropriately address the existing socio-cultural constraints of target ethnic groups so as to promote adoption of project recommended farming practices, and b) loss of land or access to resources in relation to mapping, demarcation, and registration of irrigation land/systems in the project area on a block basis (e.g. the process disregarding land under customary management and/or fallows).

Environment

• During the rehabilitation process of the irrigation channels, it is anticipated there would be some temporary environmental impact such as dust, noise that take place as a result of construction. Possible temporary impact on income generation activities (shops, food shop, businesses) due to increased traffic, dust, noises from other places (i.e. quarry) to construction sites.

3.6 Safeguards Consultation Outcomes

On the basis of potential project impact, the community consults provide the following feedback.

- **Potential Project Impact:** Participants agreed that the project would have positive impacts, and concurred with the positive social and environmental impacts described.
- Land acquisition. Main canal in this area passes through community land, and secondary/tertiary canals impact individual household lands. Participants think the benefits from the irrigation scheme improvements outweigh land acquisition impact. Participants said they are happy to donate their affected land. Upon listening to the compensation principles of the project, participants confirmed they understand and agree with this. They support the project.
- Grievances Redress Mechanism (GRM). Ethnic peoples typically lodge any complaints to the village authority through the exiting village mediation unit or committee (VMU/C). Some prefer going to the head of the ethnic group or tribal leaders (who are usually selected as the head of the VMU/C before going to the villages.
- **Participation.** Ethnic peoples should be encouraged to participate in project activities by designing activities that are appropriate to them in terms of culture, farming practices.
- **Gender.** Women are involved with crop production (growing, transplanting, harvesting) and livestock. Men work more with pest management and fertilizer application which are generally heavy work. Men typically coordinate water with other members in the water user group to ensure sufficient water for their crop.
- **Community Support**. Given the potential social and environmental positive impacts, and that the project benefits outweigh the limited adverse impact, the participants, both ethnic minorities and Lao majority, indicated their support for project implementation.

3.7 Stakeholders

The project is scheduled for implementation in seven years, from 2018 to 2025. It aims to bring out benefits to about 29,000 farmers in 224 communes of five project provinces, by increasing commercialization of selected value chains in which farmers and agribusiness are the key players. The effective participation of all key project stakeholders, particularly a) farmers and agribusinesses, and b) MAF and the agencies under MAF, throughout the project, are very important.

While active participation are expected from both two groups, the latter (MAF) plays an important role in defining how the project is implemented – an intervention approach that help MAF to deliver the project – from input, activities, output to the outcome and project impact – in the results chain. The World Bank play also an pivotal roles as a change agent – providing not only project's finance, but also implementation and technical support that support MAF in make appropriate intervention actions – to achieve intended results.

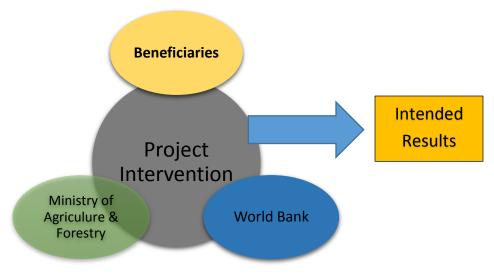


Figure 7 - Stakeholders Roles through Project Intervention

Please see the Institutional Arrangements among stakeholders at Annex 6, and how intervention actions will be implemented by the project stakeholders to address the project's impact at the Table 3 under Section 4.2

4. MITIGATION MEASURES & APPROACH TO ENHANCING DEVELOPMENT EFFECTIVENESS

This section present briefly a) measures that could be taken to avoid, or minimize the potential impact, and b) approach that could be used to enhance overall development effectiveness of the project. While the first is to address impact that are foreseeable, such as impact related to permanent loss of land and/or temporary loss of income during construction operation, the latter is more challenging to address because it is difficult to foresee clearly the impact. In some cases, failure to foresee and have in place upfront measures may result in even adverse impact that may become worse if not addressed timely and appropriately during project implementation. The section below present ways to address the potential impact for these two scenarios.

4.1 Measures for Mitigation

Overall, the project will try to avoid all adverse impact that may take place as a result of project, particularly with construction operations to rehabilitate existing irrigation channels. Avoidance of such impact could be done through selection of appropriate engineering design. However, avoidance of negative impact is not always possible. The project anticipates that there would be some permanent and temporary impact that affect the land, production activities, and livelihoods of local peoples. This is due to the rehabilitation of the existing irrigation channels. These impact are expected to be minor and localized given the nature of the rehabilitation works which will be carried out on the existing irrigation structures only. Therefore, these impact are manageable and reversible.

Where avoidance is not possible, compensation to permanent and temporary impact will be compensated in accordance with the project's Compensation & Resettlement Policy Framework. In case where ethnic minorities are present in the project area, or when they adversely affected because of land acquisition, in addition to compensation payment for the affected assets and loss of income, affected ethnic minority peoples will be supported to benefit from select development activities that will be done on the basis of consultation with them. Consultation will take the form of a social assessment which will be done commensurate to the scope of the subproject's impact. When social assessment confirms that an Ethnic Group Engagement Plan (EGEP) need to be prepared, the subproject EGEP will be prepared in accordance with the project's Ethnic Group Engagement Framework (EGEF). The following issues are anticipated to cause adverse impact.

- Land acquisition: Possibility of insignificant permanent land acquisition could be avoided through project design. Effort will be made to avoid permanent land acquisition and physical resettlement will be avoided. In case where avoidance is not possible, compensation will be paid to the affected households. For example, local peoples who lose their land permanently as a result of canal rehabilitation will be compensated for the land affected, and the crops, if any. Temporary impact such as limited water access due to construction operation will also be compensated for in case there is no measures available to avoid disruption of water service during construction. Temporary disruption to crop production: it is anticipated that restricted access to irrigation water during the construction period are likely to take place. However, such restriction of water access could be avoided by appropriate construction measures, such as conducting construction during the dry season to avoid/reduce the possibility of irrigation water access.
- **Temporary environmental impact:** dust, noise, increased traffic as a result of construction operations may affect the income generation activities of local people who run shops, local businesses, etc.). If avoidance is not possible, these impact will be compensated for if they affect the income generation activities of local peoples.
- **Resettlement Action Plan (RAP)**. A subproject RAP will be prepared in accordance with the project's CRPF to ensure compensation payment is made, and peoples are supported in livelihoods restoration that meet Bank's OP 4.12 objective.
- Ethnic Group Engagement Plan (EGDP). EGEP is an instrument that could provide development opportunities for ethnic minorities. During project implementation, screening for ethnic minorities will be done for subproject to be identified during project implementation. Based on the social assessment done for the subproject, EGEP will be prepared in accordance with the project's EGEF to ensure ethnic minorities are a) consulted in a free, prior, and informed manner, on the subproject's impact and provided with socioeconomic benefits through development activities set forth in EGEP. Project activities should be appropriate to the culture of affected ethnic minorities.

• Potential risks for ethnic groups:

For the potential risks related to project activities because of the lack of intervention methods that could fully and appropriately address the existing socio-cultural constraints of target ethnic groups so as to promote adoption of project recommended farming practices, free, prior and information consultation will be maintained during project implementation – for all project activities that target ethnic groups. This aims to assure sociocultural

concerns/constraints of target ethic groups are brought into consideration when designing and implementing intervention methods for specific activities, such as agricultural extension trainings, participation in productive partnerships, management of irrigation systems. Please see also Recommendation 1 (Section 5.2) for the approach to promote participation and ownership of project beneficiaries, including ethnic groups, to ensure activities provided to ethnic groups are culturally appropriate to them.

For the potential loss of land or access to resources in relation to mapping, demarcation, and registration of irrigation land/systems in the project area on a block basis (e.g. the process disregarding land under customary management and/or fallows). The risk is anticipated to be low because of the nature of the exercise will be primarily field observation and measurements – at land block basis. No physical intervention to land and on-farm activities of the farmers are envisaged. In cases where loss of land or limited access to farming resources arise as a result of this exercise, consultation with affected households will be conducted as per CRPF (as per EGEF for the case of affected ethnic households). Compensation will be made to affected households as per project's CRPF if such potential impact happen.

Please see a summary of potential impact and mitigation measures at the Impact Matrix at Table 3 under Section 4.2 below.

4.2 Approach for Enhancing Development Effectiveness

As the World Bank focuses on the development effectiveness, and project's impact, it's important the following aspects be considered and mainstreamed throughout the project implementation.

• Inclusion. Poor farming households, including poor ethnic groups, may potentially left behind in a way they could not become project beneficiaries in productive partnership, for instance, because of their small farm size, remote geographical location (hardly accessible), limited farming practices, cultural norms, and existing farming practices. Given this, criteria should be developed to provide opportunities for households who meet the criteria of participation into the productive partnership to receive benefit from the project. Criteria should be developed and be part of the Project Operations Manual to facilitate implementation, monitoring and evaluation.

The World Bank Group defines social inclusion as:

- 1. The process of improving the terms for individuals and groups to take part in society, and
- 2. The process of improving the ability, opportunity, and dignity of those disadvantaged on the basis of their identity to take part in society.

Social inclusion is an integral part of—and vital to—achieving the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity. To ensure the project promote social inclusion, the following aspects should be implemented carefully and consistently over the course of the project.

- **Participation Criteria.** To ensure poor households and ethnic minority who meet minimum participation criteria have opportunity to benefit from the project, considerable weights should be given to criteria checklist to encourage the participation and the chance of success for poor/ethnic minority households who are keen to participate in productive partnerships.
- **Participation Preparedness.** There may be households who meet all participation criteria but are not qualified in terms of farming experience/technology to meet the technical requirements set out by the productive partnerships. When screening for participation, these households should be encouraged to attend training series on both technical expertise and business protocol so that they could prepare themselves better. The project should also have such a preparedness plan improve the chance of success for farmers participating the partnerships.
- **Consultations.** Meaningful consultations can contribute to improved design, implementation, and sustainability of development interventions. The objectives of consultation with project stakeholders, particularly with project beneficiaries include receiving input for improved decision-making about the design and implementation arrangements of a development project, to contribute to improved results and sustainability. In this context, consultations can potentially give voice to the needs of different target groups, including vulnerable and marginalized groups; improve risk management by identifying opportunities and risks from and to a project (World Bank, 2012b); and increase transparency, public understanding, and citizen involvement in development decision-making. Consultations with key stakeholders also including project-affected people and civil societies. While consultations are frequently used during World Bank project preparation, engagement is less systematic during implementation.

The Bank suggested that consultation should start with clear subject and purpose, adequate stakeholder representation and methods of consultation, and disclosure of and timely access to understandable, relevant, and objective information and documentation. Meaningful consultations also require stakeholder identification and analysis, including due consideration of representativeness and inclusion of women, disadvantaged, vulnerable groups, ethnic minority peoples. In addition, safeguard policies require adequate documentation of consultations as part of the project documentation. Consultation should also be informed well ahead of the event to enable participants to prepare themselves.

Governments need to make relevant information available to citizens in accessible and understandable formats, and to build the capacity and systems to provide adequate responses to citizen feedback. Citizens need to acquire minimum skills to engage, and they need to be interested in the issue.

• Information disclosure. Open access to information does automatically lead to participation and impact, which also depend on such context factors as enabling legislation and grassroots activism. Information formats and activities need to be part of the design of citizen engagement processes and be based on an understanding of the target audience. Project information will be posted at community centers as well as disseminated through community meetings to ensure farming households who are potential beneficiaries of the project could study and participate as they wish. The Bank will ensure people in the project area have access to project's information to

determine how they participate in the project activities. As a good practice, the Bank's suggested that the information provided be relevant (responsive to citizens' interests), timely (sufficient notice), and understandable (language, format, and local context).

- **Languages.** Ethnic minority groups may be potentially excluded simply because the language used during information sessions, consultation meetings, trainings, project planning sessions are not in the language that they use on a daily basis. According to World Bank (2013, Inclusion Matters), language is an important aspect of identity and claim to political and cultural space. Language can thus be an important driver of both exclusion and inclusion. Thus, consideration should be given to frequent use of local languages during consultation, meetings, and trainings with the participation of ethnic minority groups.
- Sociocultural norms. Social norms can considerably affect that way men and women participate in training. Social norms contributes to establishing farming practices. Thus, changing a current farming practice mean changing a social norm that is deeply rooted in one's belief system, which may affect farmers' social network that is close to them, such as their family members, relatives, friends, neighbors, their business partners. Women in Laos spend remarkable amount of time doing house chore and farm works. They are considered appropriate more for the household role. As such, more men (than women) attend an events (meetings, trainings, etc.) outside their home. Under the project, depending on the training topics, women should be encouraged to participate as they apply the knowledge to make a joint decision with their husband.
- **Grievance Redress Mechanisms (GRM).** GRMs are increasingly recognized as a means to address complaints early on and manage risks in project preparation and implementation before they escalate providing multiple channels for soliciting complaints; registering complaints in a log; publishing timely and service standards for acknowledgement, response, and resolution; and ensuring transparency about the grievance procedure as well as options for mediation and appeal. The Law on Handling of Petitions launched in 2015 sets out principles, requirements and process of establishment, scope of responsibility of grievance redress institutions ranging from a village mediation unit or committee (VMU/C), District Office of Justice in consultation with concerned agencies (DAFO) and Provincial Court or Provincial Assembly recently established under the new GoL in 2016 for addressing grievances that may be raised by local citizen. The capacity of existing local and national institutions established to address grievances associated with the project also needs to be strengthened. Staff training on GRMs is being rolled out.
- Gender Mainstreaming. Women play an important roles in agricultural production. However, most of the time and effort they made usually go unnoticed. By having women participating more in capacity development activities, particularly in technical trainings, women can improve crop yield, diversify their crops, and as a result, increase their income and family's nutritional status. Promoting the participation in agricultural production and agribusiness are important in the context of the changing market in Laos that requires higher quality of farm produce, and stable supply to develop the supply and value chain. A specific action plan for gender mainstreaming is of high importance. This topic will be discussed further in the next section Gender Action Plan.

- **Contract farming.** Transforming from a subsidy based rice farming tradition into a market-oriented farming practice affect the way farming is done, including division of labor. Changing a farming practice means learning new knowledge and apply new skills that are required by the market, not by the farmers, or their community – from a subsidy perspective. Contract farming will be promoted under the project, which would take time. For changes to take place towards a desired outcome, change process should be phased to allow change in thoughts, knowledge, attitude, and practices. Phasing of the change process also allow project to monitor the process and intervene to correct/adjust as needed. There will be change in terms of time allocation, division of labor, commitments, roles both household level and individual levels. As gender mainstreaming will also take place in productive partnership, the project expects certain changes in roles of both men and women as they participate in the productive partnerships. As FAO (2011) noted "increasing a woman's income may empower her, changing intra-household decision making processes and, ultimately, improving household poverty outcomes. Economic empowerment of women often opens the door to improved gender relations, albeit through a transitory period that may include increased conflict as roles and relationships are renegotiated".
- **Irrigation.** Irrigation were traditionally managed by men and women, particularly in 0 rainfed upland. However, irrigation these days are managed men rather than both men and women. According to the International Institute for Asian Studies, in the local traditional schemes, men and women participate, on an equal footing, in planning, construction, use, and maintenance of irrigation schemes. However, as irrigation schemes become formalized with more complex technology and institutionalized according to Western development models, such as Water Users Groups, women become invisible and are left out, in particular in the management and decision-making roles. These models contain gender-biased views on gender roles and the division of labor. Women are considered to be of marginal significance to the functioning of the irrigation scheme because of the perception that their first responsibility is mother and housewife. It is therefore important to study the division of labor in a subproject irrigation scheme before trying to encourage a change in roles that is not demand driven. Promoting participation of women in decision making process should be considered in the context of project activities and how these activities is done to ensure there is a harmony in transition of roles as well as division labor for a particularly work, including irrigation management.
- Agricultural extension approach. Classical extension model holds the farmers in passive position where they should be responsible for adoption of the introduced technologies which are good for them. This is from of both extension workers' and scientists' perspective. This model indeed overlooks the local context that justify how farmers respond to innovations. From a modern perspective, farmers should be approached as a decision maker throughout the extension process. This aims to understand their deeply rooted constraints and help them tackle such constraints early on to reinforce farmers understanding of the requirement of the new technologies, and move on to adoption. Training should be repeated with follow-up support provided by either governmental extension workers, extension workers form private sectors, or head of farmers group (for the case of productive partnership), local change agent and opinion leaders for the case of ethnic minority people. These local peoples are very

helpful to supplement to project's extension effort, particularly in the context of limited extension network in Laos PDR.

The model of Five Stages in Innovation-Decision Process by Everett Rogers is highly recommended for by extension workers/skilled facilitators to help farmers analyze socioeconomic constraints, address them, and adopt the introduced technology (Please see Annex 5 for the steps and framework to address socioeconomic constraints).

• Leverage of Local Resources

- Change agents/Opinion leaders. Traditional leaders can be powerful agents of change in rural areas. According to WB (CSA), traditional leaders' approval can give legitimacy to new ideas and approaches, and they face no language or other sociocultural barriers. They can also perpetuate negative aspects of the culture that hinder the rights of women and men, so engaging with them in gender sensitization activities gives a sense of ownership of development programs and increases the likelihood of success. By acting as coaches and mentors for community members, the chiefs and traditional leaders enable positive behavioral changes to take place. It should also be noted that there are cases where change agents could also slow down or even hold up the adoption of an innovation. It is therefore important to keep this mind during the extension activities to address these issues as potential constraints to adoption of technologies introduced by the project.
- Behavior Change Communication (BCC). BBC is of utmost important when it comes to behavior change. To promote adoption of new technology, farm contract for the case of farmers, and practice of good nutritional practices for the case of women, communication message needs to be designed and communicated across the traditional communication channels of the target group to promote behavioral changes. Under this project, BBC will be used for nutritional activities with a view to improving nutritional status among the target population, particularly among children under 5 years of age. BBC for nutrition purpose will use the existing material from IFAD and from the IDA-financed Lao PDR Health Governance and Nutrition Development Project, the Poverty Reduction Fund, and the Reducing Rural Vulnerability and Malnutrition Project. There is no BBC at the moment for agricultural extension activities. As farmers are expected to use new varieties, farming techniques to participate in the productive partnerships. As such, the project should has a BBC Strategy to promote behavior change among farmers, taking into account gender implications.

Below is the Impact Matrix that summarize the project's potential impact vs measures to address potential impact and enhance development effectiveness.

ACTIVITIES	POTENTIAL IMPACT	MEASURES TO	APPROACH TO ENHANCE DEVELOPMENT EFFECTIVENESS	MEASURES TO ADDRESS GAPS
		AVOID/MITIGATE		
-			also Annex 4 for Gender Action and Monitoring	· · · · · · · · · · · · · · · · · · ·
• Land acquisition	 (-) Permanent loss of asset (lands, crops, structures, etc.). (-) Temporary loss of land to support construction operations (shelters, material stockpiling) 	• Technical design/RAP &EGDP	 EGDP (in case ethnic minorities – as per Bank's OP 4.10, are present in project area and SA confirm the need for preparing EGDP. Affected households could participate to benefit from development activities of the project, such as, extension training, productive partnerships, access to improved seed variety, access to improved irrigation, social BBS for improved nutrition practices. 	• Already available via CRPF and EGEF.
• Construction operations	• Temporary loss of income due to environmental pollution (that affect local income generation activities)	• Construction measures/RAP & EGDP	 EGDP (in case ethnic minorities – as per Bank's OP 4.10, are present in project area and SA confirm the need for preparing EGDP. Affected households could participate to benefit from development activities of the project, such as, extension training, productive partnerships, access to improved seed variety, access to improved irrigation, social BBS for improved nutrition practices. 	• Already available via CRPF and EGEF.
Construction operations	• Temporary loss of crop growing opportunities or reduced cropping area due to restricted access of irrigation water during construction	• Construction measures/RAP & EGDP	• Ditto	• Already available via CRPF and EGEF.
	BENEFICIARIES	T 1 · · ·		
• Demand-driven	• The poor,	 Inclusion plan 	Consultations	• Technical requirements for

Table 3 - Impact Matrix & Measures to Address Potential Impact and Enhance Development Effectiveness

ACTIVITIES	POTENTIAL IMPACT	MEASURES TO AVOID/MITIGATE	APPROACH TO ENHANCE DEVELOPMENT EFFECTIVENESS	MEASURES TO ADDRESS GAPS
training activities • Establishment of productive partnership	vulnerable, ethnic minorities could be potentially excluded from program benefits due to (geographical limitations, lack of agricultural skills/business skills, lack of land, etc.)		 Participation Criteria. Participation Preparedness. Information disclosure Languages Gender Mainstreaming Grievance Redress Mechanisms 	 Consultation, Information Disclosure, Participations, etc. will be developed and mentioned clearly to enhance inclusion methods in Project Operations Manual. In case of ethnic minorities, consultation, information disclosure, participation mechanism will be mentioned in site specific EGDP).
GENDER EQUA		for Gender Action and M	Ionitoring Plan)	
• Project activities (i.e. consultation, trainings, irrigation construction, etc.)	• Traditional roles of women (child care, household chores, handicraft, etc.) potentially exclude them from participating project events at public places	• Gender Action Plan	• Gender Mainstreaming throughout project components to provide women more opportunities to participate in project planning.	• Already available via project' Gender Action Plan. Could be updated based on site specific consultation with local beneficiaries in areas like irrigation, division of labor, etc.
	• Women from ethnic groups could be potentially excluded because of their household roles		Gender Action PlanEGDP	• Use of local languages
EFFECTIVENES	S OF INTERVENTION	ON		
• Agricultural extension	• Low rate of adoption of technologies		 Agricultural extension approach using 5- stage diffusion model (Everett Rogers) Leverage of Local Resources (Change 	• Take advantage of current extension network already in place, incl. PAFEC, DAFEO,

ACTIVITIES	POTENTIAL IMPACT	MEASURES TO AVOID/MITIGATE	APPROACH TO ENHANCE DEVELOPMENT EFFECTIVENESS	MEASURES TO ADDRESS GAPS
	introduced under project		agents/Opinion leaders, existing social groups/network.	 Village Extension System. However, current practice focuses on only training and re-training, without post- training/follow-up support to address constraint of trainees to promote adoption. Use of Five Stage Model of Innovation Process (See Annex 5 for more) Take advantage of local network, such as opinion leaders, ethnic leaders with high prestige, village headmen, etc. to promote adoption of new agri-knowledge.
• Rehabilitation of irrigation channels	• Potential water conflict (anticipated to be local, minor)	• Technical survey (prior to construction) done with full consultation of existing water users.	 Consultation with both men and women (household level) Participation of local Women's Union Participation of Water Users' Group 	
 Social Behavior Change Communication activities (SBCC) 	• No adverse impact anticipated		 Adoption of improved nutrition practices introduced through SBCC would be low if follow-up meetings/discussion are not conducted by skill facilitators. Behavior Change Communication done to raise awareness of nutrition and promote behavior change through BCC activities 	 Use of current training materials from IFAD and other projects. Recruitment of SBCC specialist to support in design of communication plan to ensure effective promotion of behavior change.
RESOURCES				
• Recruitment of	 Slow recruitment 		• Recruit high-quality, full-time consultants/	Diffusion of Innovation Specialist

ACTIVITIES	POTENTIAL	MEASURES TO	APPROACH TO ENHANCE	MEASURES TO ADDRESS
	IMPACT	AVOID/MITIGATE	DEVELOPMENT EFFECTIVENESS	GAPS
Specialists/ Consultants	process/ limited experiences could affect quality of technical assistance for project		specialists.	 Social Behavior Change Communication specialists for agricultural extension and nutrition). Gender specialist Ethnicity Specialist Social safeguards specialist Environmental safeguards management specialist Monitoring and evaluation Specialist

4.3 Gender Action Plan

4.3.1 Approach to developing Gender Action Plan

On the basis of gender analysis above (Section 3.4), the gender action under the project was developed in line with the priorities set forth between Laos PDR and the World Bank. There are two levels that shape how this project's gender action plan focuses. At first level (country level), this project's gender actions is aligned with the World Bank's Country Partnership Framework for Laos PDR, and the Lao Country Gender Action plan. At second level (project level), this project's gender actions is aligned with the project's PDO, and project's proposed scope of work, indicative of the project components.

More specifically, the gender action plan is developed on the basis of the followings:

- a. Common gender/gender inequality in Laos PDR (Section of Findings from Review of Literature above),
- b. Common gender issues among farming households in Laos,
- c. Current constraints of farmers with regards to a) access to resources for farming, b) access to economic opportunities (market, information), and c) participation of men and women in agricultural production,
- d. Project objectives, including project's activities,
- e. Project's potential positive and negative impact in relation to project's activities,
- f. Lessons learned from other major donors and the Government of Laos PDR in similar projects and project activities (such as contract farming, extension services, irrigation, nutrition, gender mainstreaming, etc.)
- g. Key technical requirements of the World Bank with regards to gender mainstreaming, citizen engagement.

4.3.2 Gender Chain Results

From the above approach, gender action under this project will be structured as **a results chain** - with the outcomes achieved through activities implemented at two lower levels - *output* and *activities*. The benefits of gender action using results chain approach is that it enables the project a) to track changes over project course, b) monitor progress achieved, , and c) evaluate the outcomes of interventions approach against the target. Result chain approach also enables the MAF to monitor closely the overall project performance – from gender perspective, and make timely adjustment of the intervention strategy, to ensure overall development effectiveness of the project.

To contribute to achieving the PDO, the following outcomes are expected to be achieved – as in the figure below, including:

- Improved women status through improved gender equality,
- Improved household income,
- Improved nutritional status of women and children, including their other family members.

Please see Gender Action and Monitoring Plan (Annex 3) for how these outcomes are postulated in the results chains and what actions should be taken to close the gender gaps, thereby contributing to achieving the project's PDO. Gender Action and Monitoring Plan for subprojects involving land acquisiton and impact on livelihoods are provided at Annex 4.



5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

On the basis of the above analysis, the project's potential impact would be overall positive. There are some potential adverse impact, which may result in permanent loss of land, temporary land acquisition, and impact on income generating activities and agricultural production. The impact related to land acquisition and construction operation are minor and as such manageable. Effort will be made to avoid, or minimize these impact via engineering design options. However, where avoidance is not possible, affected people will be compensated for their affected assets or income generation activities – as per project's CRPF.

For ethnic groups, EGDP will be used as an instrument to ensure ethnic groups present in the project areas are informed of project activities, and consulted with to ensure they could participate in planning and implementing project activities that are culturally appropriate to them. EGDP will be developed during project implementation in accordance with the project's EGEF. Given the overall positive impact of the project, the consulted people, including representatives from ethnic groups affected by the project, confirmed their broad support for project implementation. During project implementation, further consultation will be continued once details of subproject design become available.

In addition to anticipated adverse impact, some other potential adverse impact may arise – as a result of project intervention method. These impacts are not clear during project preparation stage. If overlooked, these latent (hidden) impact could affect the full achievement of the project development objective. Given this, availability of intervention methods - for each project component, and project activities, are important to ensuring

potential adverse impact could be managed during project implementation, to assure achivement of project's development objective.

Understanding of socioeconomic constraints inherent to target population that potentially affect development effectiveness could help turn the constraints into opportunities through identification and selection of appropriate intervention methods address the potential constraints and enhance the overall development effectiveness of the project. The next section provides key recommendations as intervention approach that addresses both potential adverse impact, and project's development effectiveness.

5.2 Recommendations

The project is scheduled for implementation in seven years – from 2018 to 2025. It aims to bring out direct benefits for about 29,000 farmers who live in 224 communes of five project provinces by increasing commercialization of selected value chains for farmers and agribusiness who are the two key players. In doing so, the project will not only promote identified positive impact but also aim at avoiding, or minimizing potential adverse impact that could arise unexpectedly during project implementation.

To manage unexpected impact which is usually latent at the time of project preparation, selection of appropriate intervention methods for each project component, including methods for activities under each component, is an important part that should be done during project preparation. Identification of appropriate intervention methods for project components during project preparation will not only enable the project to proceed in a course that achieves more of the intended results - at the outcome level, but also allow sufficient time for developing capacity in the early part of project implementation to satisfactorily implement the project.

For instance, agricultural extension is essential to helping farmers to increase their crop yield. However, trainings alone are not sufficient to lead to farmers' adoption of the trained knowledge. A set of actions needs to be carried out following the first training to ensure farmers uptakes the new knowledge, test it, and adopt it. This set of actions should be done using a consistent intervention method that should be carefully selected to ensure agricultural training (project activities) lead to adoption (project output), which in turn increase farmers' income (project outcome). The figure below depicts how the project would do to achieve project development objective by addressing/managing the unexpected latent impact, as mentioned in the example above.

Adverve Impact	Latent Impact		Development
Land acquisition Construction operations	Agricultural Extension	Positive Impact	Objective
	Approach Targeting & Inclusion Plan Consultation, Participation and Ownership Plan Nutrition intervention plan	Agricultural Extension Productive partnership Irrigation channels Capacity building Nutrition (SBCC)	

Figure 8 - Impact Paradigm - From Adverse to Positive (Author)

On the basis of the identified project's potential impact, the following recommendations are made, in five key areas of interventions, which deserves project's prioritization to achieve intended results. These five key intervention areas, which address the Latent Impact (Grey Arrow in diagram above), include:

- 1. Agricultural Extension Services
- 2. Targeting and Inclusion
- 3. Consultation, Participation and Ownership
- 4. Subsistence-based Production to Commercialization
- 5. Nutrition

Details of recommendations are presented below – as a way forward for project's development effectiveness. These recommendations could be developed into concrete intervention methods and reflected in Project Operations Manual, or developed into details in early stage of project implementation if there is time constraint at project preparation. It is noted that intervention areas such as *Consultation, Participation and Ownership, and Nutrition* could be reflected in POM during project preparation, whereas *Agricultural Extension Services, Targeting and Inclusion*, could be developed in the form of Technical Guidance Notes in the first year of project implementation when more information on subprojects and target groups become available.

RECOMMENDATION 1 - Agricultural Extension Services

Expected outcome: increased income & gender equality

• Use of select extension model that could address sociocultural constraints to promote adoption

Farmers want to produce crops with higher quality and yield. This helps them gain more profit –through selling their produce to local market, or supplying to wholesale/ miller/ collectors - via farm contract. To improve crop yield and quality, farmers need regular support from high-quality extension service. With limited access to high quality extension service, the adoption rate of a new technology is low. Constraints exist in the technology transfer process – between the farmers - as a technology user, and parties who expect the

farmers to use the technology they introduced. Current extension network lack these skills to facilitate the transfer process, leaving obstacles on the part of farmers that slow down the adoption rate. The 5-stage innovation decision process model – by Everett Rogers, is recommended for use to address the sociocultural constraints, thereby promoting the adoption.

• Capacity building for a) local facilitators, b) governmental extension services, c) private agribusinesses, based on select crop of the value chain

Development programs typically focuses on capacity building for government extension network. This focus is very important. However, it is not sufficient to promote the behavior change in farmers who needs to learn new, test new knowledge, convince themselves, trail, and adopt it. Though being expert, government extension network are not always available to farmers – to support the technology transfer process which take time. Capacity building for a local extension networks, who are mainly farmers, local leaders, opinion leaders, are important as these networks are readily available to the farmers, which provide timely support and keep transaction costs related to experience sharing, or peer-to-peer training at the minimum. Project can using existing informal local extension network, namely Village Extension Network, and support this group in terms of capacity.

• Packaging technology for easy use by farmers, including ethnic minorities

New technology needs to be demonstrated in the field to give farmers chance to learn from observation and experience sharing during cropping season, and after the harvest is completed. To reduce the risk of errors, technology should be package - in the form of toolkit that could be easily shared with farmers who prefer simple language rather than complex text that is scientific. Governmental extension, in collaboration with research agencies, can help package technology to make dissemination faster, and make it easy for local extension network to learn, trial, before moving to full adoption. Demonstration site should be set up - to demonstrate the advantage of the packaged technology. Attention should be given also to farmers who could be local opinion leaders and as such can influence adoption decision of the other farmers. These opinion leaders, should be identified, and trained on facilitating skill to enable them to help their community in replicating the technology package tech to wider group of farmers. Strengthening local network also help overcome the limited governmental extension service, which is in line with government's future priorities - that extension staff will play more facilitating role and transfer the new tech. Training of parties who participating in the project as wholesale, millers, collectors should be done as these parties also function as an extension agent disseminating technology, technical requirements to farmers to enable farmers to meet market demand. Technology packaging also allows research agencies to offer their staff greater exposure to the reality of poverty reduction in developing communities, and opportunities to ground-proof their technology.

Budget availability

A small budget should be set up to cover costs of facilitation at local level. Budget availability is important to enabling g farmers to meet more frequently - to interact, learn new things, and experience sharing.

RECOMMENDATION 2 – Targeting and Inclusion

(Expected outcome: reduced poverty, enhanced equality, including gender equality).

Inclusion of Poor, Vulnerable, Ethnic Minorities, and Youth

Targeting describes the efforts taken to focus program resources amongst those most in need. The main objective of targeting is a) deliver more resources to poor population groups and b) ensure those who are eligible to receive benefits are not excluded. For a number of project activities, the poor could be potentially excluded. For example, in contract farming, contracting firms generally favor contracts with larger farms and tend to bypass smaller producers who lack production and business skills. Depending on the nature of project activities, eligibility should be developed for target groups for each project activity. This ensures activities are implemented less possibility of exclusion of the poor, vulnerables, and ethnic minorities.

Also, for each group (poor, ethnic minorities, rice farmers, maize farmers), young people (youth) of each of these groups should be encouraged to actively take part in project activities. There has been a migration of young peoples from rural to urban in search for jobs, leaving a labor shortage that affect agricultural production. As a strategic direction for Laos PDR, plan should be developed with project stakeholders, including mass organization such as Women's Union, Farmers Union, to maintain the labor force to foster agricultural production and commercialization – as a long-term objective. Crop diversification should be encouraged among youth as this take their advantage of being healthy, innovative, hard-working to become successful in their household farming.

• Long-term plan to allow changes to take place.

For poor farmers, and ethnic minority people, concrete plan should be made for a particular target group in a commune, for instance, to foster year-long support, to support them in successfully adopting improved varieties, farming techniques to enable them to become qualified for a productive partnership. The training program for the poor, vulnerable needs to be phrased to allow the change process (which time consuming) to take place. Farmers should be informed of the entire process (such as training, reflection, trialing, experimenting, and adopting) so that they could become an active player in the adoption process. Innovative farmers, and opinion leaders should be invited to support the project as a role model so farmers in community to follow. If the program target only ethnic minorities, the training program could be phased in an EGDP and consultation with ethnic minorities should be done regularly to ensure the constraints that the face during the adoption process should be effectively solved.

RECOMMENDATION 3 – Consultation, Participation and Ownership

Expected outcome: enhanced capacity building and development effectiveness

Consultation contributes an important part to project design, implementation, monitoring and evaluation. For World Bank financed project, consultation is required - not only at project preparation, but also during project implementation when detailed designs of subprojects and project activities are available to allow meaningful feedback from project stakeholders. Meaningful consultation can lead to effective participation of project stakeholders, their ownership of the project activities and project's outcomes. (See what makes a consultation meaningful at Annex 8).

Participations refers to that of all project stakeholders. For the Bank, Government's stand on stakeholders' participation is very important. Depending on the venue, time, ethnic groups, purpose of meeting, participation should be facilitated by skilled facilitators - to encourage meaningful feedback from participants. The more participatory the target groups are, the more effective the planning and implementation of the project activities are and effective participation of stakeholders and their feedback indicate the demand which are important to informing the design of intervention methods that are specific for various project activities.

Ownership of project is expected as output that results from good consultation and participation. When project stakeholders actively take part in project planning and implementation, they develop an attitude of accountability for the results of the project. This attitude is important to develop as it pave way to the actions they do towards achieving the intended results. Consultation, Participation and Ownership should be promoted at all project activity level since this is the ideal entry point for effective consultation. When good consultation, participation and ownership is fostered with all project activities, project's development effectiveness is enhanced as an outcome. Capacity of people involved in the activities with good consultation, participation, and ownership also developed. Thus, it is apparent capacity development and project outcomes are the dual outcomes of good consultation, participation, and ownership process.

RECOMMENDATION 4 – Subsistence-based Production to Commercialization

(Expected impact: Increased commercialization through achievement of outcomes under Recommendation 1,2 and 3).

Certain hurdles exist as project makes effort of shifting from a subsistence-based farming practices to a commercialized farming model. This is challenging among the target groups in both upland and lowland areas. In addition to technical constraints identified in literatures for Laos PDR (such as limited access to new varieties, reliable irrigation, technologies, climate related risks, shortage of labor, market information, migration), there are other sociocultural factors that are inherent to the target groups of the project which could potentially affect the commercialization pace.

In the scenario of with-out project, these sociocultural characteristics, such as high stock of social capitals (indicative of closely connected social network, high level of mutual aid, and trust) manifested in current traditional farming practices are valuable assets that fundamental to the resilience capacity of local people in the event of natural disasters, food shortage, economic shocks, etc.

In the scenario of with-project, these sociocultural advantages, coupled with a current low demand for commercialization and limited capacity on the part of the target groups, appear as potential constraints that slow the commercialization pace if well designed interventions strategy are not in place in early stage of project implementation. While the local capacity development could be addressed under the project – through project activities – which is project driven), the ability to respond to project activities to assure development effectiveness needs to be also driven by the target group - through their

active participation and ownership, which is driven by their demand for improved household economic status.

At household level, there are various innovative activities that could be implemented to engage the target groups in project activities, and thereby enhancing their demand for economic improvement by increasing their participation for improved knowledge, behavior change, farming practices, and improved livelihoods. However, at community level, it is important to engage target group in activities in a way that enable them to access success stories, good business cases, individual role model (businesspersons) that are beyond their community – in other provinces or even in neighboring countries.

A business forum where local business could come to project provinces to interact with local government and farming workforce to express the demand of two sides is one innovative way to expose the local farmers to the market. This is one of the key constraint that farmers repeatedly mentioned during the consultation that undermine both their contract farming and also farmers who supply their produce to the local markets. Farmers are rational. Once the opportunities for improved livelihoods are clear and realizable under the project support, local peoples would be committed to their learning, participating to improve their farm production.

It is anticipated once farmers are committed to farming in their locality, the out-migration of young people in search for jobs in urban area (which is one of the main reasons for shortage of labor in rural area) would be lessened.

While Recommendations 1,2 and 3 are straightforward (that could be developed further into intervention methods and reflected in Project Operations Manual), Recommendation 4 should be further elaborated to become a consistent intervention approach integrating Recommendations 1, 2 and 3 – to promote the participation and ownership of local people, and eventually the achievement of the project objective.

RECOMMENDATION 5 – Nutrition

Expected impact: improved nutrition as a result of achievement of Recommendation 1,2,3,4 and 5.

Proposed project activities will be carried out in a phased manner to ensure that implementation arrangements build on the findings from the baseline and study on balancing commercialization and nutrition. As this is an agriculture project for nutrition, it is important to integrate nutrition considerations throughout implementation.

- Step 1: Evaluating the impact of the project on nutrition is of crucial importance to contribute to a growing evidence base for Laos on balancing commercialization with nutrition- leveraging opportunities and mitigating risks. This evaluation will include a rigorous baseline, mid-term and end line survey to identify nutrient gaps, sources of food, time/work burden, dietary habits and knowledge. These findings can be triangulated and cross-checked with the Lao Social Indicator Survey, which should be conducted 2017/18, with the subsequent one to be administered towards the end of the project period. Findings will inform the design of project activities, assuming that the budget allocation for activities can be kept flexible.
- Step 2: Study on how to balance commercialization/farming system transition and nutrition: Commercialization presents opportunities as well as some risks for

farmers. It is important to identify current sources of food in target villages and women's work burden and decision-making power associated with the selected value chains (rice, maize and vegetables) and intended shifts in the farming system. Current farming practices and potential benefits of crop diversification/integrated cropping systems will be identified including for example maize-legume, rice-fish (see description above), vegetable-rice, and fruit trees. Most importantly, the study will identify a number of champions to promote dietary diversity through supply or demand-side channels. Such a study can be facilitated by DAEC and NAFRI (with TA support) but should focus on supporting farmers to analyze their nutrition situation and identify opportunities for improving dietary diversity through regional farming systems. Such a study will help shape packages of promoted GAPs, formation of PO's, value chain and extension support, and capacity strengthening of government staff.

- Step 3: GAP extension training: support nutrition-sensitive crop diversification for dietary diversity: Based on opportunities and risks identified in the commercialization-nutrition study, support target villages to preserve, revive or introduce cropping practices that enhance access and availability to nutrient-dense foods, otherwise lacking or disappearing the area. Such activities may include support to advisory services to incorporate these messages into their outreach programs, as linked with the project intervention. Other examples may include reviving fish ponds, planting fruit trees, adding value to high-value 'secondary crops' through small-scale processing- especially for women, and promoting the value of these local products for nutrition (e.g. for complementary feeding) through the development and dissemination of audio-visual materials. Some supporting modules and materials have already been developed under the HGNDP and Agriculture for Nutrition (GAFSP) project on the promotion of dietary diversity, hygiene, and care as linked with agriculture. Based on a short capacity assessment (supported by TA), facilitate problem tree analysis, share lessons, identify roles and responsibilities, especially up to and beyond farm-gate.
- Step 4: Nutrition social behavior change communication (SBCC) for farmers/consumers. As indicated above, individual dietary and care practices are not exclusively shaped by what is available and accessible but also based on preferences, norms and values. To leverage the positive impact of increasing incomes on nutrition, the project will work with an implementing partner (under TA) to facilitate village-level improvements on (i) preserving underutilized/neglected foods, processing for improved year-long accessibility and value addition of nutrient-dense foods, and (ii) encouraging improved care practices and dietary diversity through (interactive) behavior change communication and social marketing. Instead of focusing on the most vulnerable, the project will work with 'key influencers' or change agents that can help encourage both supply and demand-side improvements. Some materials that can be expanded upon include 10 nutrition modules and complementary audio-visual materials from the GAFSP/HGNDP on IYCF, WASH, food preservation, cooking demonstrations, and use of underutilized foods.

ANNEXES

Annex 1 – Summary of Outcomes of Consultation with Local Peoples

No.	Project Province	Time	Venues	Participants	Consul
1	Bolikhamxay	6 Sep 2017,	Community	• Village: 23 persons,	Potential Project Impac
	Province	8:00 am	Center of Houana	including representatives	would have positive imp
			village, Bolikhan	from Lao Lung, Hmong,	impacts. Participants ackn
			District	Khmou (20 men, 3	mentioned by the safeguard
				women).	impacts seemed reasonable
				 Representatives Village, 	Compensation payment
				including	news about compensation
				• Representatives of	project. They have no com
				District and Provincial	■ GRM: In order to add
				Agriculture and Forestry	participants agreed that t
				Office	headman as the first point
					complaints will go to Wate
					complaints are not satisfac
					would consider approachin
					group (if they were an ethn
					district level leaders.
					Language of Consultati
					minorities preferred to ha
					language. The group indic
					preferred method.
					Community Support: Given the second secon
					indicated that they wanted
					implementation to begin in
					group meeting and the Hr
					consultation confirmed the
L	•				

Consultation on Social Safeguards with Ethnic Groups

No.	Project Province	Time	Venues	Participants	Consu
2	Xayabouly	8:00 am, 8	Thad Village,	 Approximately 170+ 	Potential Project Impac
	Province,	Sep 2017	Xienghone	people attending the	would have positive impact
			District	consultation meeting,	and environmental impa
				including 9 people from	potential adverse impact – s
				Hmong ethnic group; 11	• Land acquisition. Main
				from Khmou ethnic	community land, and seco
				group; 1 from Lue ethnic group, and all remaining	household lands. Participar scheme improvements
				100+ are from Nhouan	Participants said they are ha
				ethnic group (90+ men	listening to the compensati
				and 80 women).	confirmed they understand
					project which is why we are
					• GRM. Ethnic peoples 1
					organization. Ethnic group
					never go to the head of the
					• Participation. Participants
					good numbers for training
					said yes. Ethnic peoples c
					project activities by designing
					in terms of culture, farming

No.	Project Province	Time	Venues	Participants	Consu
					 Gender. Women are investing) a management and fertilizer work. Men typically coord water user group to ensure Community Support. environmental positive in outweigh the limited adverthrough hand raising, their
3	Xayabouly Province,	Sep 2017	Dontan Village, Xienghone District	 Approximately 126 people attending the consultation meeting. There are 6 ethnic minority groups in this village attending the consultation: Lao (3), Lue (100); Hmong (5); Khmou (11); Pray (2); Nhouan (6). (75 women, 51 men). 	 Potential Project Impact: of potential project's impa- impact. Land acquisition. In the p They did land donation. principles to be applied und GRM. Participants proposivillage organization, even for village organization, even for project impacts, the par confirmed their broad support

No.	Project Province	Time	Venues	Participants	Consu
					raising of hands.)
4	Bolikhamxay Province,	13 Sep 2017	Sysomxay Village, Thaphabath District	 25 peoples attending the consultation. There are 3 ethnic groups participating, including 7 from Katang ethnic people, 12 from Tai ethnic group and 6 Lao ethnic group). (18 men, 7 women). 	 Potential Project Impact would have positive impact and environmental impact potential adverse impact – terms of adverse impact construction, there may be by trucks during construction Land acquisition. In the for land acquisition for irrig intended to donate their lat they will benefit from impre- two crops a year. Farmed access gain them more ber irrigation access. The costs area. For example, land lo compared to paddy land cheaper). If compensation compensation payment at r GRM. If there is any compared to paddy

No.	Project Province	Time	Venues	Participants	Consu
					submit their complaints to
					group leader. They propos
					government's organization
					• Participation. Planning c
					use participatory approach
					Women Union, Village Ad
					project activities. At hous
					involved.
					• Gender. The farming ac
					transplanting, seedbed prej
					responsible for fertilizer a
					paddy field, including mak
					Labor Division. Family d
					women, men or both)
					• Expenditure: both man
					expenditure.
					 Farming: both are involved
					• Health: Women is gener
					for medicine and transp
					undertaken by men.
					• Children education: wo
					However, husband needs
					 Irrigation: Currently, me
					mainly men. But canal cle
					• Community Support. Give
					the participants attending
					for project implementation
					project and expect to get
					improved agri-infrastructur

No.	Project Province	Time	Venues	Participants	Consul

Annex 2 – Sample Minutes of Consultation

Sample Minutes of Consultation on Safeguards

(Round 1 - From 6 to 13 September 2017)

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Sample Minutes of Gender Consultation

(Round 2 - From 5 to 12 October 2017)

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Annex 3 – Gender Action and Monitoring Plan

	Results Chain	Actions	Monitoring indicators	Means of Verification	Assumptions
Project objective					
ОUTCOME 1 (Сотр А & В)	Improved household income.		 % of target households reporting increase of income as a result of improved product quality (disaggregated by female-headed and male-headed households, and by crops, incl. rice, maize, vegetables) % increase in cost-benefit ratio of total crops produced per year % increase in land (either owned or rent) using introduced technologies 	term surveys	•
Output	Farmers adopting the introduced technology		 % target households reporting adopting the introduced technology (disaggregated by female-headed and male-headed households, and by crops, incl. rice, maize, vegetables) % increase in area (ha) of target households with adoption of project introduced technologies (disaggregated by female-headed and male-headed households, and by crops, incl. rice, maize, vegetables) % of target households reporting increased cost-benefit ratio (compared to their preproject farming practice) 		•
Activities	Farmers are trained on technologies (i.e. seeds, pesticides, water use, fertilizers, post- harvest, etc.)	 Before: Ensure at least 35% of participants at each training are women. 	 % female farmers participating each extension training % female farmers participating each extension training evaluating the training being "useful" and "applicable" 	Post-training	•

	Results Chain	Actions	Monitoring indicators	Means of Verification	Assumptions
		 After: Ensure follow-up meetings are conducted within the farmers group to discuss constraints to adopting the new training knowledge. Ensure demonstration sites were set up in the village observation and learning process. Ensure where possible, Farmers Field School approach is used to allow trainees to observe the field and learn. Ensure on-farm workshop is hold upon harvest of the demonstration site to draw lessons learned, including calculation of cost-benefits ratio 	 After: % of Follow-up meetings conducted per total training events (% of women participants) 	• Project record	
Activities	Provide educational materials (leaflet, posters)		• % participating households receiving nutrition materials (booklet, leaflet, poster, etc.)		•
	Nutrition IEC materials are distributed and explained in agriculture training sessions		• % of training with IEC materials distributed with explanation to training participants	• Project records	A distribution plan is in place
Output	Productive partnerships		• % of female head and men head households trained joining productive		

	Results Chain	Actions	Monitoring indicators	Means of Verification	Assumptions
Activities	Candidate households are trained to participate in productive	Identify female headed households in each of target village	 partnerships % of farmers reporting adjusting division of labor that lessens women' household work. % of target households reporting increase of income as a result of farming contract % of female head households participating in training to join productive partnership 		
OUTCOME 2 (Comp A)	partnership Improved nutritional status of women and children		 % of children under 5 affected by stunting % decrease in malnutrition rate from 0 to 5 years of age % decrease in the number of referral cases from district to provincial or central level on the part of children from 0 to 5. % decreased in children falling under Category C from 0 to 5 % of child delivered under-weight 	• Health record from district health center.	•
Output	Target groups, including those benefiting from S- BBC and those indirectly receive S- BCC benefit adopt good nutrition practices to improve the nutritional status of their children		 Direct beneficiary: % of women attending agricultural training and Women Union lead meetings can name at least 50% of good dietary practices they learn these events. In-direct beneficiary (covered by S-BBC campaign): % of women target by S-BCC can name at least 50% of good dietary practices. % of women 15–49 years of age (disaggregated by Direct and In-direct beneficiaries) have consumed at least five 		

	Results Chain	Actions	Monitoring indicators	Means of Verification	Assumptions
			out of ten defined food groups the		
			previous day or night ⁶		
Activities	Conduct social	Nutrition message are	• % men and women participating each	Project record	
	behavior change	incorporated in IEC	communication activities		
	communication (S-	materials and distributed to			
	BBC), and social	participants attending agri-			
Activities	marketing Nutrition IEC	extension trainings		T 1 1 177 TT '	
Activities			• % of training with IEC materials		IEC materials are
	materials are distributed and		distributed with explanation to training	records	prepared
	explained in		participants		beforehand.
	training/meetings				berorenand.
	organized by local				
	Women Union				
OUTCOME	Improved gender	Outcome 3 is assumed to a	esult from achievement of the both Outcon	nes 1 &2.	
3	equality through	Achievement of Outcome 1	is assumed to result in achievement of Outcom	e 2 (weak causal relation)	
	improved women		is assumed to result in achievement of Outcon	ne 1 for the case of poor,	
	status	vulnerable (strong causal rela	tion)	1	
Output			• % of households reporting less burden on	•	•
			women during post-harvest activities		
			(storage, processing)		
			• % of women reporting having higher		
			control over spending decision		
			• % of women reporting increased income		
			as a result of the project.		
			• % of women reporting spending more		
			for herself and her children' nutrition.		
			• % of women reporting spending less hours		
			doing housework		
			• % of women report using more public		
			transportation/ travel more freely in public		

⁶ Minimum Dietary Diversity for Women of Reproductive Age (MDD-W) -- 1. Grains, white roots and tubers, and plantains 2. Pulses (beans, peas and lentils) 3. Nuts and seeds 4. Dairy 5. Meat, poultry and fish 6. Eggs 7. Dark green leafy vegetables 8. Other vitamin A-rich fruits and vegetables 9. Other vegetables 10. Other fruits.

	Results Chain	Actions	Monitoring indicators	Means of Verification	Assumptions
			 spaces % of women reporting increased ability to visit friends, family, associates % of women reporting increased involvement in major household decisions % of women's involvement in community decision-making 		
ОUTCOME 4 (Comp A & C)	Improvedresearchandextensioncapacity at central andlocal levels				
Output			• % increase in the number of women participating in extension training activities at village level		
Activities			• % men and women participating in direct research and extension team supporting the project		

Annex 4 – Suggestive Gender Action & Monitoring Plan for RAP

According to the requirements of the World Bank, this project needs to be informed on three gender dimension; *gender analysis, gender action*, and *gender monitoring* and evaluation (M&E). A quick gender analysis of the socioeconomic characteristics of the affected population should be analyzed the following gender action and monitoring plan could be used for a subproject RAP.

Gender Action: As part of RAP implementation, the following gender actions will be made.

- **Participation.** Women should be invited to all consultation sessions throughout project cycle, particular to consultation done in groups to allow them chance to express their opinion, concerns, and to provide feedback on their resettlement and income/livelihoods restoration process. Women are prioritized to work in the project if needed.
- *Well-informed of Project Impact.* The potential impact of resettlement and livelihoods restoration should be further informed to the affected women so that they are fully aware of the potential impact on their household as well as their income generation activities, and as such propose measures that the project should do to avoid or minimize the impact.
- Intra-household gender disparities: as the gender analysis indicates, women spend more time than men doing housework and care of their children. Some also work to earn extra income. As a result, the relocation process, particularly for those losing shelter, would apparently take them more time and effort as a result of relocation, and affect their ability to earn income for if they work as hired labor, or are directly involved in crop care/cultivation, which eventually increase their burden.
- Income/Livelihoods Restoration. As some households may change their jobs, i.e. households who depend on seasonal income primarily from crops and/or fruit trees. Counseling and training of new job skill to this group should be done with the capacity of men and women in mind to make the training knowledge applicable and the possibility of success with the new job is enhanced.
- **Safety Assurance.** As women take care of children, they need to be notified/warned of potential risks are inherent during the relocation of their houses. In many cases where both men and women are directly involved in the relocation/house building/new business operation, they need to arrange a safe, alternative person to take care of their children.
- On the basis of more gender based consultations, as mentioned above, the methods of compensation payment, particularly the coordination between PAFO, and severely affected households, will be worked out carefully to ensure difficulties and challenging of

severely affected women are avoided, or minimized.

• More consultation needs to be carefully done among affected EM households to ensure the support and compensation provided to them are cultural appropriate to them, and that both men and women could participate in and received economic and social benefits provided to them through development activities proposed under subproject EGDP.

<u>Gender Monitoring</u>. During monitoring on RAP implementation, the key indicators (underlined below) of gender should be monitored and reflected in internal and external monitoring reports.

• Consultation participation:

Ensure women are invited to participate in public consultations and group discussions during the RAP updating and implementing process. <u>At least 30% of participants in consultation meeting are women.</u>

• Compensation disbursement.

Ensure that the process of compensation disbursement is transparent and that compensation is in the name of both spouses. <u>Presence of both husband and wife at the compensation payment session should be encouraged.</u>

Local government must ensure that the affected persons are guided carefully on how the compensation would be made – in cash or through bank transfer so that affected households have sufficient time to prepare themselves and a safe reception of the compensation money.

• Livelihoods Restoration

Assess women's requirements for skills training to facilitate income restoration.100% of severely affected households who confirm their need for job counseling/training/job introduction will be invited to consultation session(s) with participation from women representing these households.

Consider including women among the group to receive any employment opportunities generated through the project. <u>All contractors participating project construction will inform</u> PAFO of job opportunities appropriate for women, and PAFO will inform the affected households.

Explore opportunities to link women to self-help groups and microfinance programs.

Annex 5 – Model of Five Stages in Innovation-Decision Process (Everett Rogers)

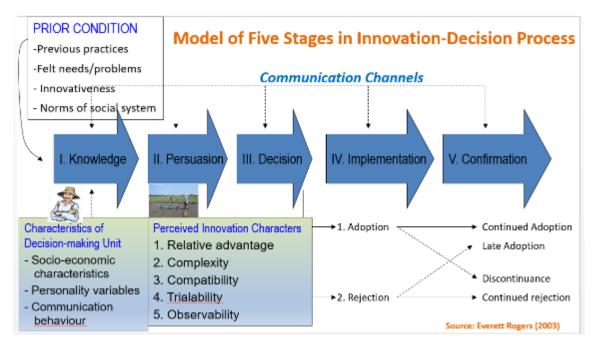


Figure 9 - Model by Everett Rogers (2003). Picture prepared by author.

Annex 6 – Institutional Arrangements

(from Project Appraisal Document)

1. **Implementing Agencies:** The project implementing agencies will be MAF, MOIC, and the five project provinces.

2. **Central Level: MAF is the central Line Agency** responsible for overall project implementation, including: (a) reporting to the government on implementation progress and effectiveness; and (b) coordinating with concerned ministries, such as the Ministries of Finance and Planning and Investment to process necessary legal amendments or project restructuring to facilitate project implementation, enhance disbursement, and improve the efficiency of the use of IDA funds.

3. The Central Project Steering Committee (CPSC). The CPSC will be established based on the existing National Food Security Secretariat (NFSS) and will be chaired by a Vice Minister of MAF with representatives from concerned ministries, project provinces, and other concerned agencies. The CPSC will hold meetings at least twice a year. The CPSC will be responsible for: (a) approving the general annual work plans (AWP); (b) reviewing the project implementation progress; and (c) providing guidance to the project implementing agencies to resolve implementation bottlenecks.

4. **Department of Planning and Cooperation** (DOPC) is the key implementing agency responsible for coordinating with the central departments of MAF (i.e. NAFRI, DOA, DAEC, DALaM, and Department of Irrigation (DOI) to (a) implement their respective activities which have been approved by the CPSC; (b) provide guidance and support to Project Provinces in project implementation and management according to their mandates; (c) develop and maintain a sound Project accounting system; (d) handle international competitive bidding (ICB) packages, selection of international consultants, and other procurement packages which need to be handled at the central level; and (e) monitor the quality of project implementation, safeguards compliance, and impact for reporting to MAF and IDA.

5. **The Project Management Division** (PMD) under DOPC will be responsible for day-to-day project implementation including financial management, procurement, and safeguards implementation and compliance. More specifically, PMD will be responsible for (a) preparing and consolidating detailed annual work plans at budget plans at both central and provincial levels; (b) managing the Designated Account (DA) including disbursement and submission of withdrawal applications for replenishment; (c) periodic project reporting, monitoring and evaluation to ensure project implementation is in compliance with the World Bank and government's regulations; and (d) arranging for the project's annual audits. A

full-time Project Director will be appointed by MAF and working at the PMD.

6. **Ministry of Industry and Commerce** will be responsible for: (a) reviewing and approving the detailed annual work plans which have been designated to the Ministry; (b) providing guidance to its central departments (i.e. DOIH, DOSMEP, DOTP, DIEX, DTD, and Department of Planning and Cooperation (DPC) to implement their respective activities; and (c) providing technical support to the project provinces (i.e. PICOs) in project implementation and management according to their mandates.

7. **Provincial Level. The Provincial Governor's Office** is the provincial Line Agency responsible for project implementation in the province.

8. **A Provincial Steering Committee** (PSC), chaired by the Governor or Vice Governor, will be established to provide guidance to the PAFO on project implementation in the Province. The PSC will hold meetings twice a year to assist the PAFO in resolving important implementation problems. The PSC is responsible for: (a) reviewing and approving the detailed provincial annual work plans which have been designated to the Province; (b) reviewing the project implementation progress; and (c) providing guidance to the PAFO to resolve implementation bottlenecks.

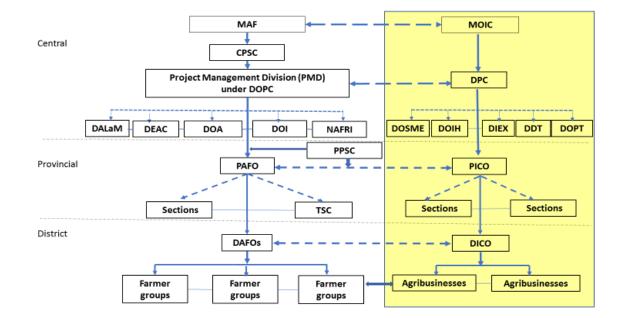
9. **The Provincial Agriculture and Forestry Office** (PAFO) is the key project implementing agency at the provincial level, responsible for: (a) preparing project plans and reports; (b) handling procurement activities which are decentralized to the province; (c) maintaining a sound accounting system for the project, satisfactory to IDA; (d) monitoring the quality of project implementation and safeguards compliance; and (e) coordinating with selected Districts and Communes to carry out planned activities. PICO and technical departments of MAF and MOIC will provide necessary technical support to PAFO when required.

10. **Technical, Advisory and Supporting Agencies:** These include technical departments of MAF (i.e. NAFRI, DOA, DALaM, DOI) and of MOIC (i.e. DOIH, DOSMEP, DOTP, DIEX, and DTD) to provide technical support to DOPC and PAFOs in implementing technical activities.

11. Local governments, consisting of Districts and Communes authorities, will be available to assist the PAFOs and PICOs in implementing and monitoring project activities in their locations according to their administrative and management functions.

12. **Farmer Groups/Organizations** will be established on a voluntary basis through the facilitation of the project to implement GAP under Component A and productive partnerships under Component B.

13. Institutional and implementation arrangements are summarized in Figure 1 below.



Component/subcompone nt	Primary Responsibility	Supporting Agencies
A. Improved Agriculture Efficiency and Sustainability A1- Adopting good varieties and quality seeds A2- Promoting good agriculture practices A3- Providing critical infrastructure A4- Strengthening public services delivery	NAFRI, DOA, DAEC, PAFO DOA, DAEC, DALaM, PAFO DOI, PAFO DAEC, DaLaM, DOPC, PAFO	MAF technical departments
 B. Enhanced Agricultural Commercialization B1- Establishing Agriculture Value Chain Facility B2- Linking farmers to markets B3- Improving the enabling environment 	PAFO/PICO DAEC, DOSMEP, DTD, DTP, PAFO, PICO DOA, DOIH, DIMEX, DTP	MAF & MOIC technical departments
C. Project Management C1- Project management C2- Monitoring and evaluation	DOPC (MAF), DPC (MOIC), PAFO	MAF & MOIC technical departments

<u>Notes</u>: Primary responsible agencies are responsible for making decisions for project implementation; supporting agencies will provide technical advice and collaborate when necessary, but will not possess any approval powers for project implementation.

Annex 7 – Consultation – How to make consultations meaningful

(from World Bank's Guidance Note - Consultations in Investment Lending)

To make consultations effective and meaningful, the Borrower should:

- Provide relevant information to stakeholders in a form and language they can understand, sufficiently before the proposed date of a public meeting. In the case of other forms of consultations (electronic or by mail), such information should be provided well before the date by which comments and suggestions are supposed to be provided by stakeholders to the project agency.
- Document the overall process, the various consultation events, and the results of the consultations. The documentation should reflect key issues discussed, any agreements reached, and any concerns expressed by stakeholders.
- Discuss, in project documents and in the documentation on consultations, how comments and suggestions made by stakeholders during consultations have been taken into account in project design and implementation.
- Describe and discuss, in project documentation as well as in documentation on consultations, any suggestions from stakeholders that cannot be taken into account, along with the reasons / justification as to why they cannot be incorporated in project design and implementation.

Annex 8 – Guide questions for Qualitative Inquiries

Lao Agriculture Commercialization Project (P161473)

GUIDELINES FOR SOCIAL CONSULTATION

Location:_____Date:____

Purpose of Consultation: on the basis of free, prior and informed manner consultation,

- Present briefly to representatives from select ethnic groups the purpose and key activities of the project, and its potential impact;
- o Seek feedback of local people on the basis of the potential impact and compensation policies
- Collect comments/suggestions related to participating mechanism for local people, including ethnic groups to receive socioeconomic benefits from project investment.
- On the basis of the outcome, confirm a broad community support for project implementation (as per Bank's OP 4.10).

A. INTRODUCTION OF PROJECT ACTIVITIES

Component A: Enhancing Productivity of Farming Systems: Enhancing productivity of farming systems

- 1. Production organization and promotion of the use of good quality seeds;
- 2. **Research and extension** to improve farming practices and **farm machinery** to promote good and sustainable agricultural production, **diversification** and **commercialization**;
- 3. Upgrades of existing irrigation infrastructure and improvement of water management practices;
- 4. Establishment and capacity building for farmer groups and their members; and
- 5. Mapping, demarcation, and registration of irrigation land/systems in the project area on a block basis (not for individual plots).

Component B: Strengthening Agricultural Value Chains. Strengthening and productivity of farming systems

- 1. Matching grants to farmer groups and their members to promote investments in harvesting machines, drying and storage facilities to reduce pre/postharvest losses;
- 2. Matching grants and capacity building assistance to agribusinesses to strengthen their role in driving the value chain development;
- 3. Upgrades of feeder access to production areas and farms;
- 4. **Training and consulting support to farmer groups** and their members to build their management skills, business development and marketing of farm produce through adopting contract farming, value addition and product branding;
 - AT POLICY LEVEL, Support MAF, Ministry of Industry and Commerce (MOIC) in conducting relevant market research, agricultural policy analyses, and improving intelligence and management skills; and

• Improving the enabling environment through strengthening capacity for quality control and standards certification (i.e. seeds, produce, mills, etc.) including improved inspection services, test kits and laboratory capacity to certify for clean and safe foods.

Component C: Project Management

B. ANTICIPATED POTENTIAL IMPACT OF PROJECT ACTIVITIES

- (+) Key positive impact: will be overall positive
 - ✓ Opportunities of <u>access to improved farm knowledge</u>, including access to <u>quality seed</u>,
 - ✓ Crop diversification based on local knowledge and practices,
 - ✓ Formation of farmers groups for mutual help/business partnership
 - ✓ Access to improved irrigation system for more reliable production.
 - ✓ Opportunities for <u>participation of men and women in project planning, implementation, M&E</u>
 - ✓ AT POLICY LEVEL, ENHANCE LEGAL ENVIRONMENT FOR IMPROVED FARM PRODUCTIVITY AND COMPETITIVENESS

(-) Key adverse impact:

- Will be minor, localized, limited, manageable and reversible,
 - Potential minor land acquisition due to rehabilitation of irrigation channels/reservoirs, etc.).
 - Can be avoided or minimized through proper design. If not avoidable, compensated for via Compensation & Resettlement Policy Framework.
 - Potentially reduced competitiveness of local farm products for some groups (if not managed).
 - Can be avoided through a) FPIC consultation and b) explore ways so that EM peoples could participate in project activities from planning, implementation through regular M&E, c) targeted project activities.

C. FEEDBACK FROM LOCAL PEOPLE ON POTENTIAL PROJECT IMPACT

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Positive Impact (+)
Adverse Impact (-)
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In particular, the following feedback are sought:

• HOW COMPENSATION SHOULD BE MADE (CULTURALLY APPROPIRATE)?

 HOW COMPLAINTS/COMMENTS/QUESTIONS SHOULD BE ADDRESSED (GRM) AS PART OF CRPF AND EGPF?

HOW THE PARTICIPATION OF PEOPLES COULD BE FACILIATED TO PROMOTE THEIR planning, implementation and M&E of project activities. (CULTURALLY APPROPRIATE)

WHAT ARE TYPICAL ROLES/ LABOR DIVISION B/T MEN-WOMEN IN FAMILY?

HOW BOTH PARTICIPATION OF MEN & WOMEN (HOUSEHOLD & COMMUNITY) COULD BE PROMOTED? GENDER MAINSTREAMING

D. CONFIRMATION OF BROAD COMMUNITY SUPPORT FOR PROJECT IMPLEMENTATION

E. ADDITIONAL NOTES

Ministry of Agriculture and Forestry

RICE FARMERS

With contract farming experiences

Province:	District:	Village
Date:		0-

NUMBER OF PARTICIPANTS:

1. <u>RICE FARMING PRACTICE</u> - In terms of time (and who decide), please let us know how you divide your family labor - between Men and Women for the following activities.

	Before Contract farming		Now with contract farming			NOTES	
ACTIVITIES	MEN	WOMEN	BOTH	MEN	WOMEN	BOTH	
HOME (time)							
Doing housework							
Child care							
Fetch water for domestic use							
Manage income							
Manage home business							
ANIMAL HUSBANDRY							
(time)							
Feeding animal							
Vet							
IRRIGATION WATER							
(time)							
Coordinate irrigation water							
RICE PRODUCTION							
(time)							
Selection of seeds							
Seed bed preparation							

	Before Contract farming			Now with contract farming			NOTES
ACTIVITIES	MEN	WOMEN	BOTH	MEN	WOMEN	BOTH	
Soil judgment							
Land preparation							
Pulling of seedling							
Transplanting							
Weeding							
Pesticide application							
Fertilizing							
Harvesting							
Threshing							
Selling, incl. deciding on							
prices Saving income							
APPLY NEW TECHNO							
(who decides)							
Use of new seeds							
Use of new fertilizers							
Use of new pesticides Mechanization							
Mechanization							
SPENDING (who decides)							
Family foods							
Health care							
Children education							
Agri-inputs							
Others							

2. <u>CONTRACT FARMING</u> - As a contracted farmers, please let us know what are the <u>KEY BENEFITS</u> that you have from entering into contract with a local enterprise? <u>Note to researcher</u>: prompt the followings only in case participants miss the following factors: Prices, their overall Income, impact of increased in come on their family expenditure, Re-investment in production, Diversify crops (if any), etc.).

Please also check if farmers feel they receive enough information on the **PRICES**, **INPUTS**? Do they feel they are selling to the miller **AT A GOOD PRICE**?

In your opinion, as a contracted farmer, what could you do to improve the trust and long-term partnership with your business partner (Miller)

Similarly, what could your business partner (Miller) do to improve the trust and long-term partnership with you.

3. What are the <u>KEY CONSTRAINTS</u> that you still face when contracting with current enterprise. <u>Note to</u> <u>researcher</u>: prompt the following only in case participants miss the following factors: Prices (i.e. fluctuating), Farm size, Expectation from current enterprise that can not be met, Seed quality, Pests, Water access, Post-harvest issues (Process and Storage), Labor, Machinery, Training, Impact on Family Expenditure, Re-investment in Production, etc.) Please try to check the above information from BOTH MEN AND WOMEN participating the discussion

4. Generally, how do you assess the relative advantage of the current contract farming (Mark "X" on relevant box)

Not at all	Not good	ОК	Good	Very good

Please provide the reason why? And your recommendations for improvement.

- 5. <u>AGRICULTURAL EXTENSION -</u> Generally, how do you assess the usefulness of the current extension support (Mark "X" on relevant box)
 - Government's extension support

Not at all	Not good	ОК	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

• Village's extension support

Not at all	Not good	OK	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

• Miller's extension support

Not at all	Not good	ОК	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

6. NUTRITION

• What are the main sources of rice, vegetables, fruits, and animal-based products for household consumption (i.e. own cultivation, gathered, neighbor, or market). Are these food cultivated or gathered themselves and if this pattern is changing and why?

• How many times per week are meat and green vegetable consumed by the household/individual (especially women)? If less than 3 times/week, why do you think this is? Are dietary habits shifting and why?

COMMENTS AND SUGGESTIONS:

<u>RICE FARMERS</u>

With **NO** contract farming experiences

Province:	District:	Village
Date:		C

NUMBER OF PARTICIPANTS:

1. <u>RICE FARMING PRACTICE</u> - In terms of time (and who decide), please let us know how you divide your family labor - between Men and Women for the following activities.

ACTIVITIES	MEN	WOMEN	BOTH	NOTES
HOME (time)				
Doing housework				
Child care				
Fetch water for domestic use				
Manage income				
Manage home business				
Others (please specify)				
ANIMAL HUSBANDRY				
(time)				
Feeding animal				
Vet				
Others (please specify)				
IRRIGATION WATER				
(time)				
Coordinate irrigation water				
MAIZE PRODUCTION				

ACTIVITIES	MEN	WOMEN	BOTH	NOTES
(time)				
Selection of seeds				
Land preparation				
Seed bed preparation				
Soil judgment				
Land preparation				
Pulling of seedling				
Transplanting				
Weeding				
Pesticide application Fertilizing				
Fertilizing				
Harvesting				
Threshing				
Selling, incl. deciding on				
prices				
Saving income				
APPLY NEW TECHNO				
(who decides)				
Use of new seeds				
Use of new fertilizers				
Use of new pesticides				
Mechanization				
SPENDING (who decides)				
Family foods				
Health care				
Children education				
Agri-inputs				
Others				

FARM CONTRACT - As a contracted farmers, please let us know what are the <u>KEY BENEFITS</u> that you have from entering into contract with a local enterprise? <u>Note to researcher</u>: prompt the followings only in case participants miss the following factors: Prices, overall Income, impact of increased in come on their family expenditure, Re-investment in production, Diversify crops, if any, etc.

Please also check if farmers feel they receive enough information on the **<u>PRICES</u>**, **<u>INPUTS</u>**? Do they feel they are selling to the miller **<u>AT A GOOD PRICE</u>**?

In your opinion, as a contracted farmer, what could you do to improve the trust and long-term partnership with your business partner (Miller)

Similarly, what could your business partner (Miller) do to improve the trust and long-term partnership with you.

2. What are the <u>KEY CONSTRAINTS</u> that you still face when contracting with current enterprise. <u>Note to</u> <u>researcher</u>: prompt the following only in case participants miss the following factors: Prices (i.e. fluctuating), Farm size, Expectation from current enterprise that cannot be met, Seed quality, Pests, Water access, Post-harvest issues (Process and Storage), Labor, Machinery, Training, Impact on Family Expenditure, Re-investment in Production, etc.)
Please try to check the above information from <u>BOTH MEN AND WOMEN</u> participating the discussion

3. Generally, how do you assess the relative advantage of the current farming contract (Mark "X" on relevant box)

Not at all	Not good	OK	Good	Very good

Please provide the reason why? And your recommendations for improvement.

- 4. <u>AGRICULTURAL EXTENSION</u> Generally, how do you assess the usefulness of the current extension support (Mark "X" on relevant box)
 - Government's extension support

Not at all	Not good	OK	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

• Village's extension support

Not at all	Not good	OK	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

5. NUTRITION

• What are the main sources of rice, vegetables, fruits, and animal-based products for household consumption (i.e. own cultivation, gathered, neighbor, or market). Are these food cultivated or gathered themselves and if this pattern is changing and why?

• How many times per week are meat and green vegetable consumed by the household/individual (especially women)? If less than 3 times/week, why do you think this is? Are dietary habits shifting and why?

COMMENTS AND SUGGESTIONS:

For RICE MILLER <u>WHO IS HAVING FARMING CONTRACTS WITH RICE FARMERS</u>

Province:	District:	Village
Date:		C

7. <u>FARM CONTRACT</u> - As a miller having contracts with rice farmers, please let us know what are the <u>KEY</u> <u>BENEFITS</u> that you have from entering into contract with local rice farmers?

<u>Note to researcher</u>: prompt the followings only in case participants miss the following factors: Prices, their overall income, impact of increased in come on their family expenditure, re-investment in production, supply chain (to district/provincial level), country market, export, etc.)

<u>Please ask</u>: What type of contract farming the miller has with the farmers

- If it is in the form of purchase of grains, please ask if they prefer to deal with male or female farm owners?
 Do they find <u>quality</u> and <u>reliability</u> of rice supply DIFFERENT <u>AMONG the supply groups of</u> <u>farmers</u>? Why?
- If contract farming is in the form of miller providing farmers with agricultural input such as seeds/fertilizers, and provide some extension services, do they find any DIFFERENCES IN THE USE OF
 PRODUCTIVE RESOURCES by male and female farm owners in terms of efficiency and quality of yields

8. What are the <u>KEY CONSTRAINTS</u> that you still face when contracting with current farmers. <u>Note to</u> <u>researcher</u>: prompt the following only in case participants miss the following factors: Prices, Rice Quality, Post-harvest issues (Process and Storage), Supply quantity (to ensure stable supply chain). 9. Generally, how do you assess the relative advantage of the current farming contract (Mark "X" on relevant box)

Not at all	Not good	OK	Good	Very good
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Please provide the reasons why? And your recommendations for improvement. Do you have any

10. <u>AGRICULTURAL EXTENSION -</u> Generally, how do you assess the usefulness of the current extension support (Mark "X" on relevant box)

• Government's extension support

Not at all	Not good	ОК	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

• Village's extension support

-				
Not at all	Not good	OK	Good	Very good

Please provide the reason why? And your recommendations for improving the current extension services

• Your current extension support: please let us know what extension support do you provide to current contract farmers (i.e. seed, technologies, etc.)

11. COMMENTS AND SUGGESTIONS:

Among comments/suggestion from Miller, please ask who manage the milling business, and income (men or women, or both). Who decides to invest on new equipment and milling related technologies?

Annex 9 – Gender based Division of Labor of Maize, Vegetable and Rice Farmers

		AIZE - 1 DNTRA		M	IAIZE -	WITH	CON'	<u>TRAC</u>	<u>[</u>		GETAB. Contr			ICE - N DNTRA							ſ
				B	EFORE	<u> </u>	-	AFTER								BEFORE			AFTER		
ACTIVITIES	М	W	В	М	W	В	М	W	В	М	W	В	М	W	В	М	W	В	М	W	В
HOME (time)																					
Doing housework		X			X			X			X			X			X			X	
Child care		X			X			X			X			X			X			X	
Fetch water for domestic use	X			X		X	X			X				X			X				X
Manage income		X			X	X			X	X				X			X			X	
Manage home business			X						X		X				X	X					X
Others (please specify)				X			X														
ANIMAL HUSBANDRY (time)																					
Feeding animal			X		X	X		X		Х	X		X	X			X			X	
Vet	X			X			X			X			X			X			X		
Others (please specify)			X																		
IRRIGATION WATER (time)																					

		AIZE - 1 ONTRA		<u>N</u>	<u>IAIZE -</u>	WITH	<u>I CON'</u>	TRAC	<u>r</u>	VEGETABLE - NO CONTRACT			RICE - NO CONTRACT			RICE - WITH CONTRACT					
				B	BEFORE	<u></u>		AFTER								В	BEFORE	3		AFTEI	2
Coordinate irrigation water	X			X			X			X			X	X							
PRODUCTION (time)																					
Selection of seeds			X	X		X			X		X			X			X			X	
Land preparation	X					X	X					X			X	X			X		
Seed bed preparation	Х					X	X			X			X			X			X		
Soil judgment																X			X		
Pulling of seedling																X			X		
Transplanting			X			X	X					X		X			X			X	
Weeding			X	X		X	X					X			X			X			X
Pesticide application			X	X		X	X			X	X										
Fertilizing	X			X		X			X			X			X			X			X
Harvesting			X			X			X			X			X			X			X
Threshing			X		1	X			X			X			X			X			X
Selling, incl. deciding on prices			X			X			X			X			X	X					X
Saving income			X	X		X		X			X			X				X			X
APPLY NEW TECH (who																					

		AIZE - 1 Ontra		<u>N</u>	<u>MAIZE - WITH CONTRACT</u>				VEGETABLE - NO CONTRACT			RICE - NO CONTRACT			RICE - WITH CONTRACT						
				B	EFORE	<u> </u>		AFTEI	ł							В	EFORE	3		AFTEI	3
decides)																					
Use of new seeds			X	X		X			X			X			X		X			X	
Use of new fertilizers				X					X			X			X		X			X	
Use of new pesticides				X					X			X									
Mechanization	X			Х					X	X			X			X			X		
SPENDING(wh o decides)																					
Family foods		X			X						X			X			X			X	
Health care		X			X	X		X				X		X				X			X
Children education		x			X	X			х			x		х				X			X
Agri-inputs			х			X			x			x			x			X			X
Make money	х								x												
Others																					

Annex 10 – Consultation Summary of Nutrition Practices of Farmers

What are the main sources of rice, vegetables, fruits, and animal-based products for household consumption (i.e. own cultivation, gathered, neighbour, or market). Are these food cultivated or gathered themselves and if this pattern is changing and why?

Villages visited	Responses
Buamlao-phakeo, Xayabouly province	 They have their own cultivation of rice, vegetables, some fruits and small animals for their family consumption. In some occasion, they bought from Paklay town's market. Apart from these they collected some vegetable from forest. They feel that price of these food is increasing, possibly not many villagers carry out cultivation, but concentrating to plantation of cash crops such as maize and bean
Senphon, Xayabouly province	• Farmers have their own cultivation of rice, vegetables, fruit and small animals for their consumption. These food are still available for their family consumption
Mahaxaineua, Mahaxai district, Khammouane province	• Farmers conducted their own cultivation of rice, vegetable, fruit for their household consumption, sometimes some households bought meat from market. They recognize that price of meat is increasing, possibly because of business tax, cost of transport and so on.

How many times per week are meat and green vegetable consumed by the household/individual (especially women)? If less than 3 times/week, why do you think this is? Are dietary habits shifting and why?

Villages visited	Responses
Buamlao-phakeo, Xayabouly province	Unfortunately, there was no pregnant the meeting. However, when asking about nutrition consumption by pregnant women, men said that
	 Their wives ate eggs 2-3 times per week. They can afford to buy eggs. Indeed, they do not like eggs. They ate eggs when they were hurried, had not enough time to cook and wanted to change food Eating fish three times per week, fish is available at tributaries
	• Eating meat of various kinds about 4-5 times per week. They said that their wives and kids are not malnutritious.
Senphon, Xayabouly province	Individuals/households together with pregnant women ate eggs (9 times/ week), fish (7 times/week) and meat (2 times/week). They said they do not like meat, they prefer eggs and fish more than meat
Thoulakham district, Bungphao village ,Vientiane province	 Consume various kinds of vegetable every day Egg is 2-3 per week for women. Men consume egg almost every day

	 Fish- almost every day (or at least 5day a week) Meat of different kinds (beef, poultries, pork- about 1-2 time a week The food/meal diversity and pattern has been consumed for generation, since childhood. Some women consumed more frequently during pregnancy. Almost all villagers are majority Laotians (not IPs). There is 2-3 Khmu women, Thai inter-married with local people here.
Mahaxaineua, Mahaxai district, Khammouane province	• Most farmers ate eggs (3-4 times/week), vegetables very often (10 times/week), fish very day (7 times/week) and meat (2-3 times/week)